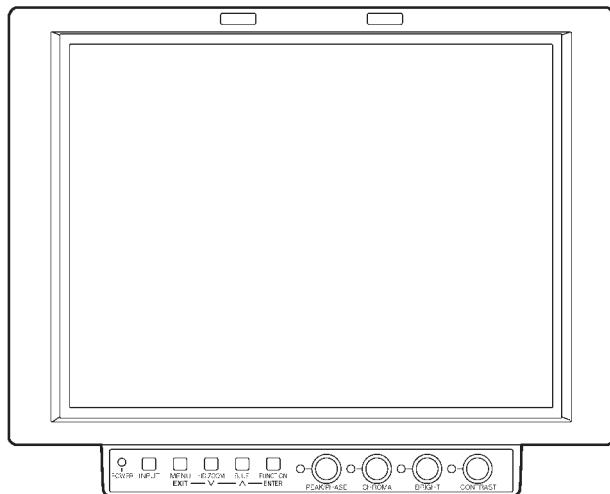


# Service Manual

- Sec. 1** *Service Information*
- Sec. 2** *Electrical Adjustments*
- Sec. 3** *Block Diagrams*
- Sec. 4** *Schematic Diagrams*
- Sec. 5** *Exploded Views & Replacement Parts Lists*

Liquid Crystal Video Monitor  
**BT-LH900P**



**Panasonic**

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## ⚠ WARNING

This service information is designed for experienced repair technicians only and is not designed for use by the general public. It does not contain warnings or cautions to advise non-technical individuals of potential dangers in attempting to service a product. Products powered by electricity should be serviced or repaired only by experienced professional technicians. Any attempt to service or repair the product or products deal with in this service manual by anyone else could result in serious injury or death.

# Specifications

## [GENERAL]

**Power supply:** DC 12 V (11.0 V to 17.0 V)  
**Input current:** 1.45 A

 indicates safety information.

### Dimensions (W × H × D):

218 × 176 × 65 mm  
(When the main controls have been installed at  
the bottom of the monitor)

### Weight:

2.0 kg (main unit only)

### Ambient operating temperature:

0 °C to 40 °C

### Ambient operating humidity:

10% to 85% (no condensation)

### Ambient temperature for storage:

-4 °F to 140 °F (-20 °C to +60 °C)

## [Panel]

### Size:

8.4 type

### Number of pixels:

1024 × 768 (XGA)

### Display colors:

Approx. 16.77 million colors

### Angle of view:

Top-bottom direction: 170°  
Left-right direction: 170°

## [Input connectors]

### Image input:

#### VIDEO:

1 line, BNC × 2  
(1 connector with through-out configuration)

#### Analog component:

1 line for YPBPR/RGB, BNC × 4

#### SDI:

2 lines, BNC × 3  
(1 connector with switched out facility)

### GPI:

D-sub, 9 pins

### RS-232C:

D-sub, 9 pins

### DC input:

XLR, 4 pins

### Battery holder:

Battery holder made by Anton Bauer

## [Signal formats supported]

### Formats when SDI signals are used

480/59.94I	576/50I
720/60P	720/59.94P
1035/60I	1035/59.94I
1080/24PsF	1080/23.98PsF
1080/24P	1080/23.98P
1080/25P	1080/30P
1080/29.97P	1080/50I
1080/60I	1080/59.94I

### Formats when RGB signals are used

480/59.94I	576/50I
480/59.94P	720/60P
720/59.94P	1035/60I
1035/59.94I	1080/50I
1080/60I	1080/59.94I

### Formats when Y/Pb/Pr signals are used

480/59.94I	576/50I
480/59.94P	720/60P
720/59.94P	1035/60I
1035/59.94I	1080/24PsF
1080/23.98PsF	1080/24P
1080/23.98P	1080/25P
1080/30P	1080/29.97P
1080/50I	1080/60I
1080/59.94I	

### Formats when video signals are used

480/59.94I	576/50I
------------	---------

## [Accessories provided with the monitor]

### Metal battery mount

# SAFETY PRECAUTIONS

## GENERAL GUIDELINES

1. When servicing, observe the original lead dress. If a short circuit is found, replace all parts which have been overheated or damaged by the short circuit.
2. After servicing, see to it that all the protective devices such as insulation barriers, insulation papers shields are properly installed.
3. After servicing, make the following leakage current checks to prevent the customer from being exposed to shock hazards.

## LEAKAGE CURRENT COLD CHECK

1. Unplug the AC cord and connect a jumper between the two prongs on the plug.
2. Measure the resistance value, with an ohm meter, between the jumpered AC plug and each exposed metallic cabinet part on the equipment such as screwheads, connectors, control shafts, etc. The resistance value must be more than  $5\Omega$ .

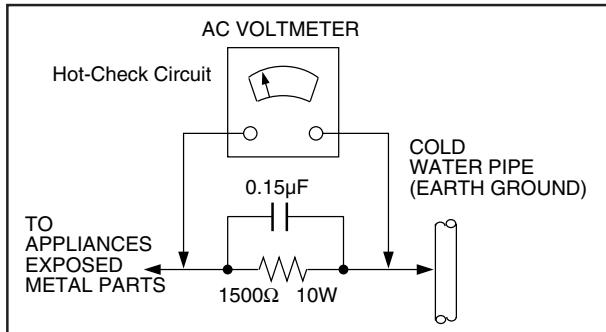


Figure1

## LEAKAGE CURRENT HOT CHECK (See Figure 1)

1. Plug the AC cord directly into the AC outlet. Do not use an isolation transformer for this check.
2. Connect a  $1.5k\Omega$ ,  $10W$  resistor, in parallel with a  $0.15\mu F$  capacitor, between each exposed metallic part on the set and a good earth ground such as a water pipe, as shown in Figure1.
3. Use an AC voltmeter, with  $1000$  ohms/volt or more sensitivity, to measure the potential across the resistor.
4. Check each exposed metallic part, and measure the voltage at each point.
5. Reverse the AC plug in the AC outlet repeat each of the above measurements.
6. The potential at any point should not exceed  $0.15$  volts RMS. A leakage current tester (Simpson Model 229 equivalent) may be used to make the hot checks, leakage current must not exceed  $0.1$  milliamp. In case a measurement is outside of the limits specified, there is a possibility of a shock hazard, and the equipment should be repaired and rechecked before it is returned to the customer.

## ABOUT LEAD FREE SOLDER (PbF)

### Distinction of PbF PCB :

PCBs (manufactured) using lead free solder will have a PbF stamp on the PCB.

### Caution :

1. Pb free solder has a high melting point than standard solder; Typically the melting point is  $50-70^{\circ}\text{F}$  ( $30-40^{\circ}\text{C}$ ) higher. Please use a high temperature soldering iron. In case of the soldering iron with temperature control, please set it to  $700\pm 20^{\circ}\text{F}$  ( $370\pm 10^{\circ}\text{C}$ ).
2. Pb free solder will tend to splash when heated too high (about  $1100^{\circ}\text{F}/600^{\circ}\text{C}$ )

## ELECTROSTATICALLY SENSITIVE (ES) DEVICES

Some semiconductor (solid state) devices can be damaged easily by static electricity. Such components commonly are called Electrostatically sensitive (ED) Devices. Examples of typical ES devices are integrated circuits and some field-effect transistors and semiconductor "chip" components. The following techniques should be used to help reduce the incidence of component damage caused by static electricity.

1. Immediately before handling any semiconductor component or semiconductor-equipped assembly, drain off any electrostatic charge on your body by touching a known earth ground. Alternatively, obtain and wear a commercially available discharging wrist trap device, which should be removed for potential shock reasons prior to applying power to the unit under test.
2. After removing an electrical assembly equipped with ES devices, place the assembly on a conductive surface such as aluminum foil, to prevent electrostatic charge buildup or exposure of the assembly.
3. Use only a grounded tip soldering iron to solder or unsolder ES devices.
4. Use only an anti-static solder removal device classified as "anti-static" can generate electrical charges sufficient to damage ES devices.
5. Do not use freon-propelled chemicals. These can generate electrical charges sufficient to damage ES devices.
6. Do not remove a replacement ES device from its protective package until immediately before you are ready to install it. (most replacement ES devices are package with leads electrically shorted together by conductive foam, aluminum foil or comparable conductive material).
7. Immediately before removing the protective material from the leads of a replacement ES device, touch the protective material to the chassis or circuit assembly into which the device will be installed. CAUTION : Be sure no power is applied to the chassis or circuit, and observe all other safety precautions.
8. Minimize bodily motions when handling unpacked replacement ES devices. (Otherwise harmless motion such as the brushing together of your clothes fabric or the lifting of your foot from a carpeted floor can generate static electricity sufficient to damage an ES device).

## X-RADIATION

### WARNING

1. The potential source of X-radiation in EVF sets is the High Voltage section and the picture tube.
2. When using a picture tube test jig for service, ensure that jig is capable of handling  $10\text{kV}$  without causing x-radiation.

**Note :** It is important to use an accurate periodically calibrated high voltage meter.

3. Measure the High Voltage. The meter (electric type) reading should indicate  $2.5\text{kV}$ ,  $\pm 0.15\text{kV}$ . If the meter indication is out of tolerance, immediate service and correction is required to prevent the possibility of premature component failure. To prevent an x-radiation possibility, it is essential to use the specified picture tube.

# **Panasonic**

# SECTION 1

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## SERVICE INFORMATION

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# 1. Maintenance

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## 1-1. Necessity for maintenance

A backlight power supply is used in this LCD monitor. This part (which is a consumable) will deteriorate over time and lead to a reduced level of performance and failure. For this reason, it involves periodic maintenance and servicing aimed at keeping up the performance that the monitor is designed to provide and preventing sudden failures caused by consumable part.

## 1-2. Maintenance Schedule

The times given below indicate rough times for maintenance. They do not indicate the operating life of the various parts. The times and part numbers are subject to change so consult the most recent maintenance guidelines.

No.	Part Name	Part No.	Quantity	Hours of exchange
1	BACKLIGHT	84LHS03	1	38,000 hours

### NOTE:

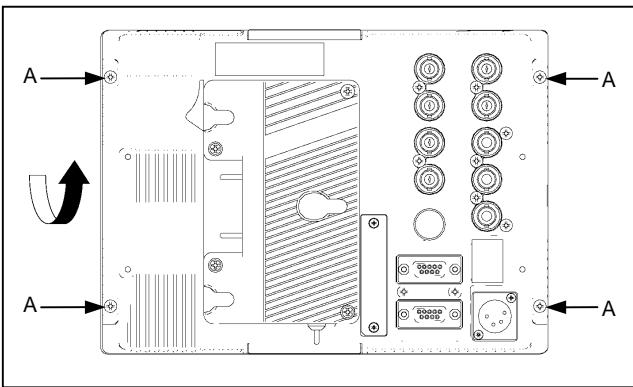
- Refer to the times displayed under each item under the “MAINTENANCE” in the SERVICE menus as a guide to replacement times.

### 1-3.Exchange method of the Backlight.

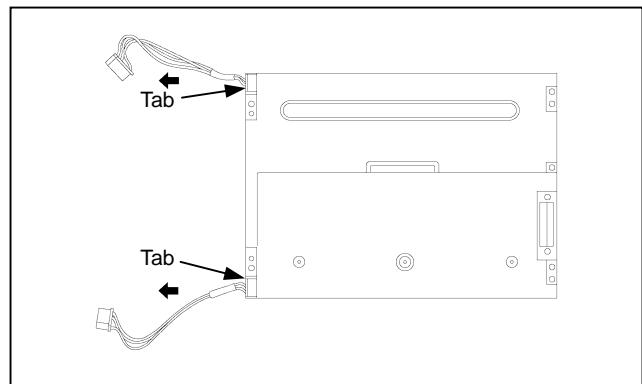
1. Unscrew the 4 Screw (A), and open the backcase by turning it to the direction of the arrow.

#### NOTE

Work carefully so as not to damage the Flexible cable when removing it.



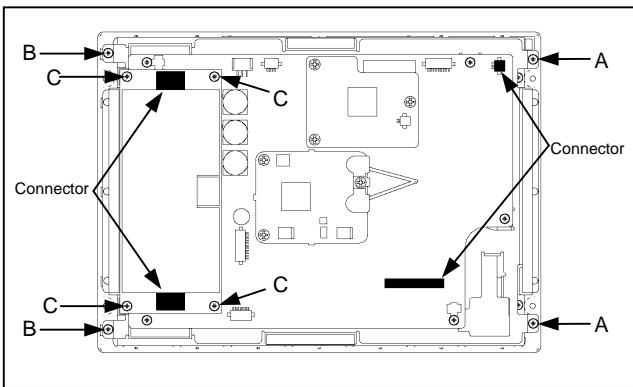
5. When removing the Backlight, Slide the Backlight as indicated by the arrow while releasing the Locking tab.



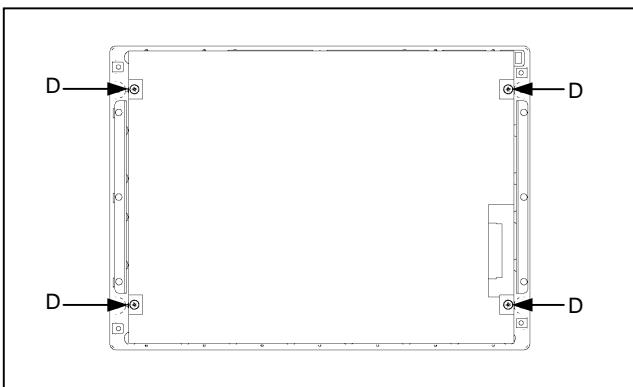
2. Disconnect the 4 Connectors.
3. Unscrew the 4 Screw (B), and remove the MAIN P.C.B. base and P.C.borad by the combination.

#### Reassembly Note

When installing the connect or of the inverter, unscrew the 4 Screw (C) and remove the inverter and then install it.



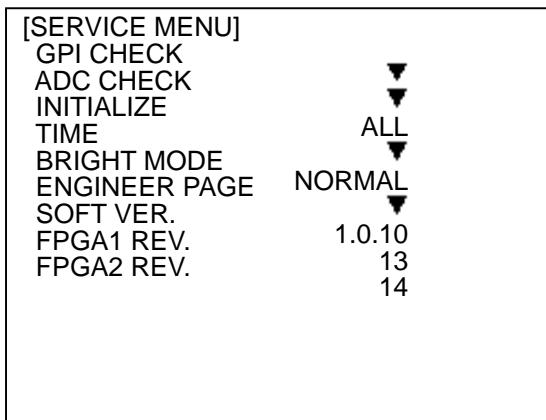
4. Unscrew the 4 Screw (D), and remove the LCD Panel.



## 2. Service menu

### 2-1. Service Menu Operation Method

1. While simultaneously pressing the [INPUT] and [MENU/EXIT] button and the [HD ZOOM/□] button, switch on the unit's power.
2. Press the [MENU/EXIT] button once again. The service menu appears on the LCD. Press the [□□] button and [□] button to select the item, then press [ENTER]. The screen to change the item appears.
3. Turn off the power and turn it back on to cancel a service menu display.



Setting items	Options	Content and descriptions
GPI CHECK	▼	Checks the function of the GPI terminal.
ADC CHECK	▼	Sets the automatic adjustment of the ADC value.
INITIALIZE	ALL/ SET UP/ HOUR METER/ GAMMA/ ADC	Initialize the each data. ALL: SET UP and HOUR METER data. SET UP: menu, function button, image controls data. HOUR METER: hour meter data. GAMMA: Not used ADC : Not used
TIME	▼	Displays and clears the time on each hour meter. OPERATION :Displays the operation time.(Can not reset) LCD :Displays the LCD operation time.(Can be reset) BACKLIGHT :Displays the BACKLIGHT operation time.(Can be reset)
BRIGHT MODE	NORMAL/ CONNECT	Controls the operation of the image controls. NORMAL: Normal operation CONNECT: Connects with the BACKLIGHT
ENGINEER PAGE	▼	Not used
SOFT VER	---	Shows the version of the software.
FPGA REV	---	Shows the revision of the FPGA1.
FPGA REV	---	Shows the revision of the FPGA2.

### 3. How to set the internal switches

The table shows the functions of the switches on the Main and Sub board. Switches indicated "Factory use only" must be set to the "Factory Setting".

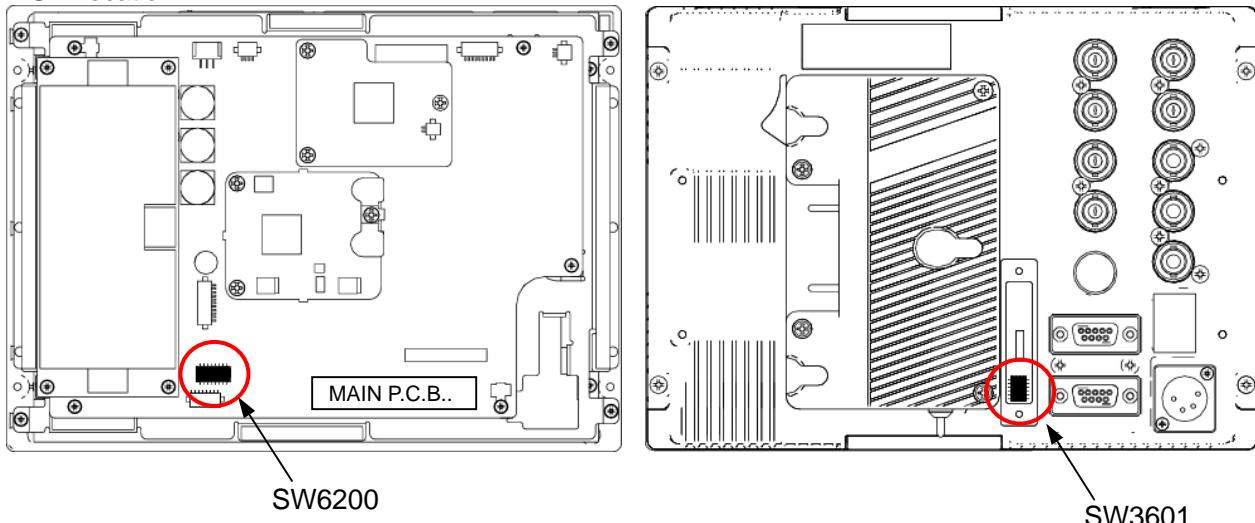
MAIN P.C.BOARD

DIPSW6200	Function	Factory Setting
1	Factory use only	OFF
2		OFF
3		OFF
4		OFF
5		OFF
6		OFF
7		ON
8		ON

SUB P.C.BOARD

DIPSW3601	Function	Factory Setting
1	Used when writing over microprocessor software.	ON
2	Factory use only	OFF
3	Used when writing over microprocessor software.	OFF
4	Factory use only	OFF
5	Factory use only	OFF
6	Used when setting gamma and ADC value.	OFF

DIP SW location



## 4. Software Version Upgrade Method

### 4-1. Version Upgrade for the microprocessor with Flash Memory

The microcomputers on the MAIN circuit board has built-in flash memory. Version up the software according to the following procedure.

### 4-2. Version Upgrade Preparations

#### 4-2-1. Items required to write to the flash memory

- Software for updating  
VFK1894 (Flash starter)
- PC Windows 95,98
- RS-232C cable (9P straight cable)

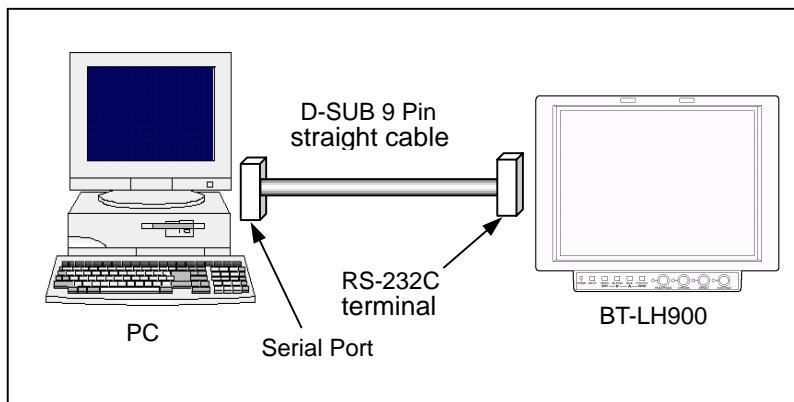
#### 4-2-2. Installation of version up software

Copy the following file to a directory of your choice on the Windows 95/98 compatible computer.

- VFK1894(Flash starter)

#### 4-2-3. Connection

Switch the unit's power off, and then connect the RS-232C cable (9P straight cable) to the unit's REMOTE terminal (D-Sub 9 pin) and the computer as shown below.

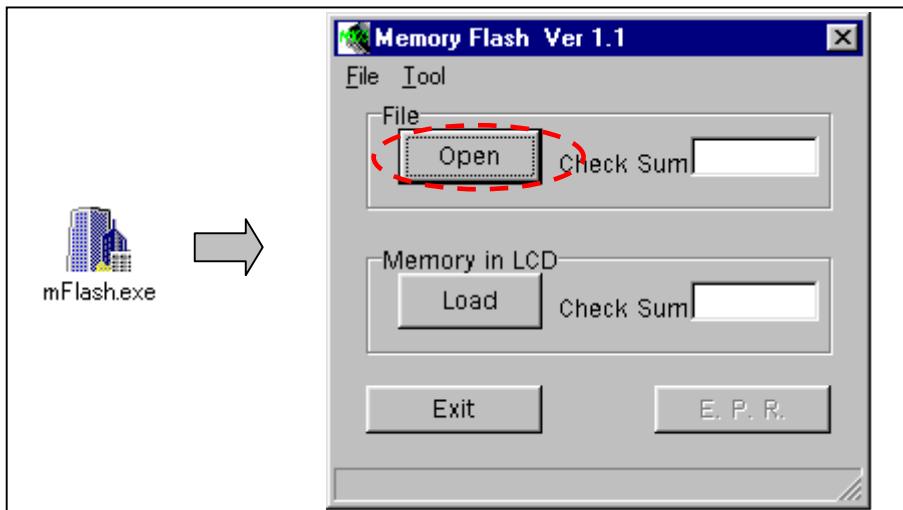


#### 4-3. Writing steps

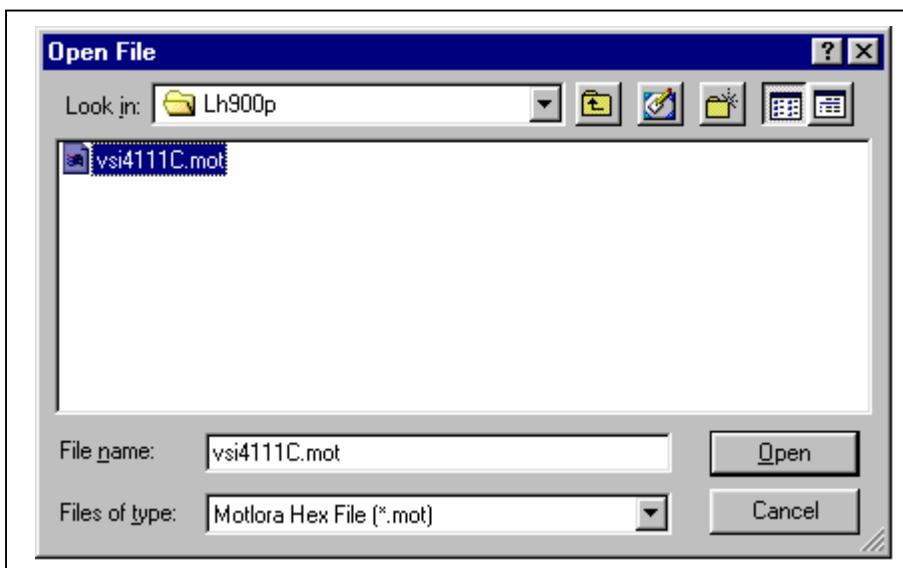
1. Remove the maintenance cover, set DIP switch (SW3601) as follows.

DIPSW3601	Position
1	OFF
2	OFF
3	ON
4	OFF
5	OFF
6	OFF

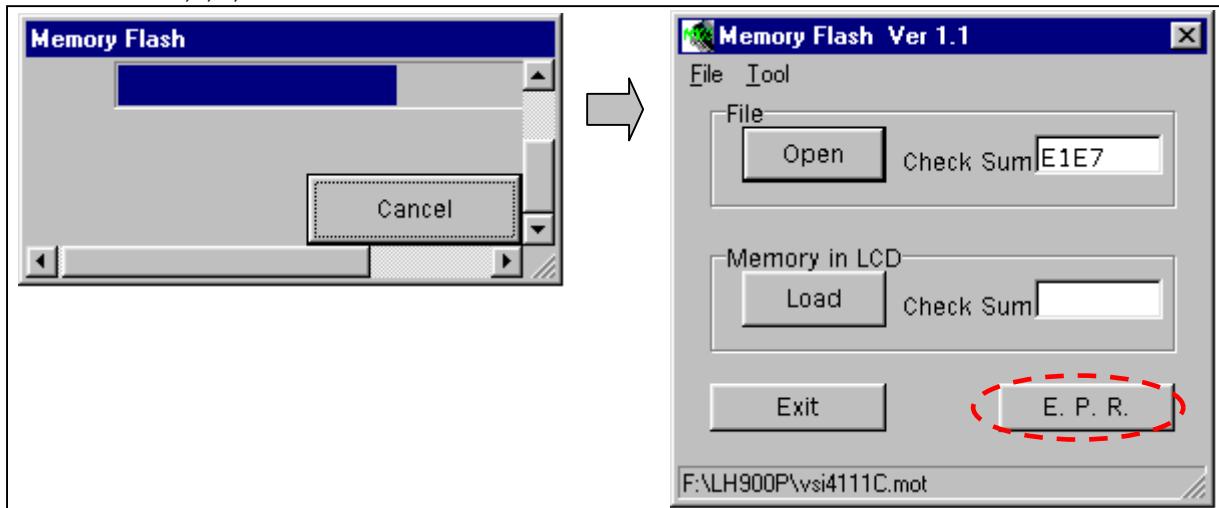
2. Switch the unit's power on.
3. Start up the software for updating the flash memory. “**mFlash.exe**”
4. Press the “**Open**” button.



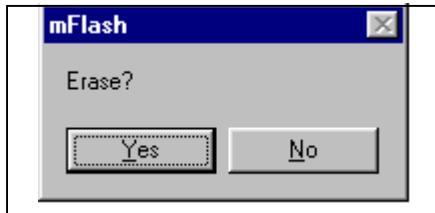
5. Select the floppy drive and then select the “**jcf format file (\*\*\*.jcf)** on dialog box of Restore JCF” and then press the “**Open**” button.



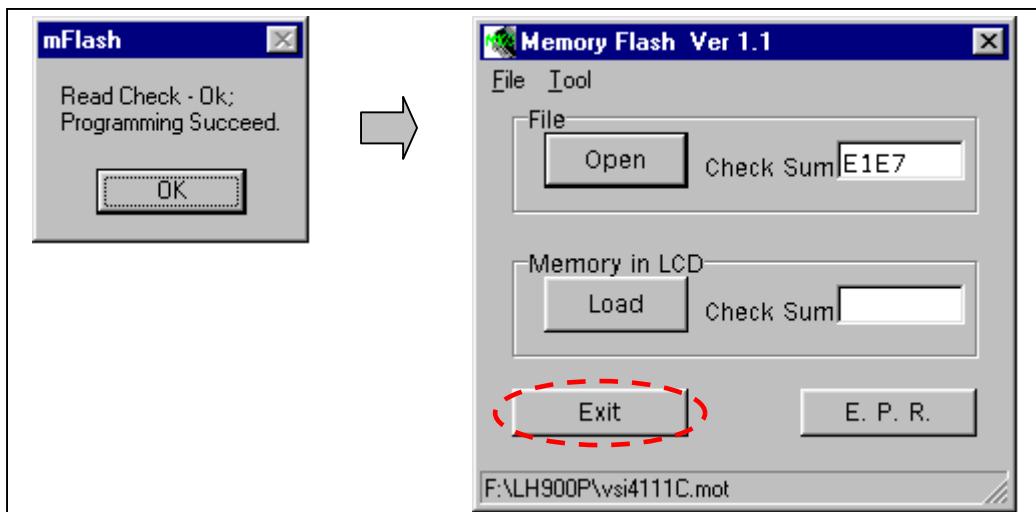
6. After reading the memory, Check Sum value appears.
7. Press the "E,P,R," button.



8. Because the confirmation window of the note is displayed I push a button "Yes".



9. "Read Check – Ok" appears if the program ends correctly. Press the OK button then Exit button to end Flash Starter.



10. Return the DIP switch (SW3601) on the SUB board to the default setting, and attach the maintenance cover.

DIPSW3601	POSITION
1	ON
2	OFF
3	OFF
4	OFF
5	OFF
6	OFF

← SET

← SET

## 5. PLD Version Upgrade Procedure

This Model uses **PLDs**. When you upgrade version, use the special tool, connect to the connector for writing of each PLD, and use the PLD writing software.

Circuit board name	Name	Ref. No.	Connector for writing	PLD maker
MAIN P.C.B.	FPGA1	IC6400	P3605(P6104)	ALTERA
	FPGA2	IC6600		

### 5-1. PLD Version up Method 1 (ALTERA)

#### A. Preparation

ITEM	REMARK
CPLD WRITER	VFK1590 VFK1590P2
D-sub 25pin-25pin Cable	Straight (Male - Female), Length : Within 1meter
Version Upgrade Software	MAX+plus II Software ver9.6 or over ver9.6 (Please access to <a href="http://www.altera.com/support/software/download/sof-download_center.html">www.altera.com/support/software/download/sof-download_center.html</a> ) and select “ASAP 2” in programming software portion in order to download it.
File NAME	jcf File (Included in “vvvsi xxxx” file). (Copy all files of the VVVS1**** which is included “*.jct” file to floppy disk)
Personal Computer	WINDOWS 95® or 98®

#### B. Connection

1. Connect the D-sub Cable between CN201(for ALTERA) connector of the CPLD WRITER (VFK1590) and Personal Computer (Printer port).
2. Connect the CPLD WRITER Cable (VFK1590P2) between the connector for writing of each PLD (refer to below) and P2 connector of CPLD WRITER.
3. Turn on this model and Personal Computer (Windows mode).

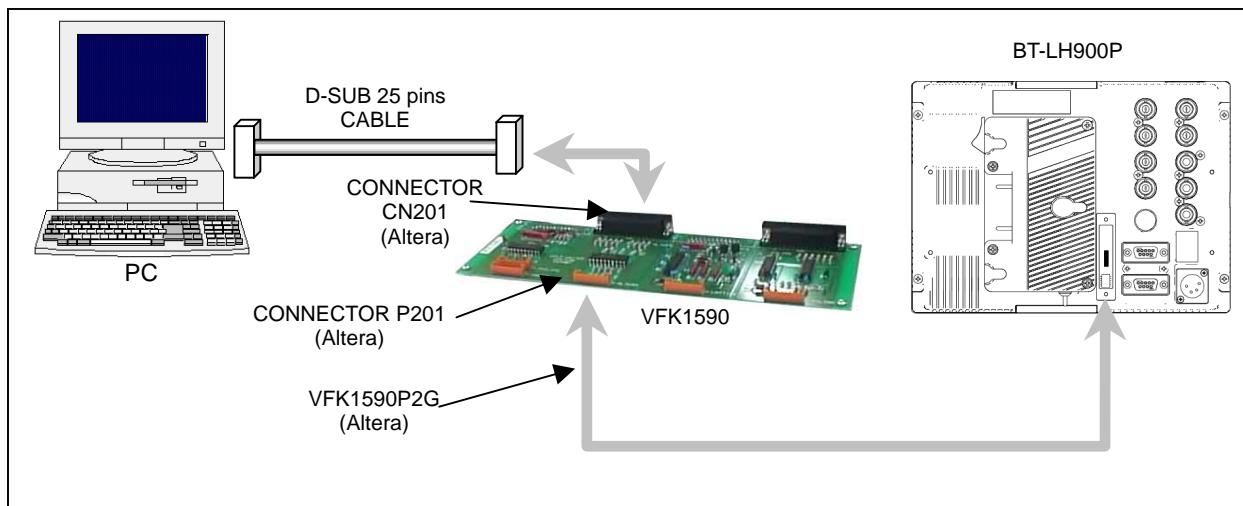
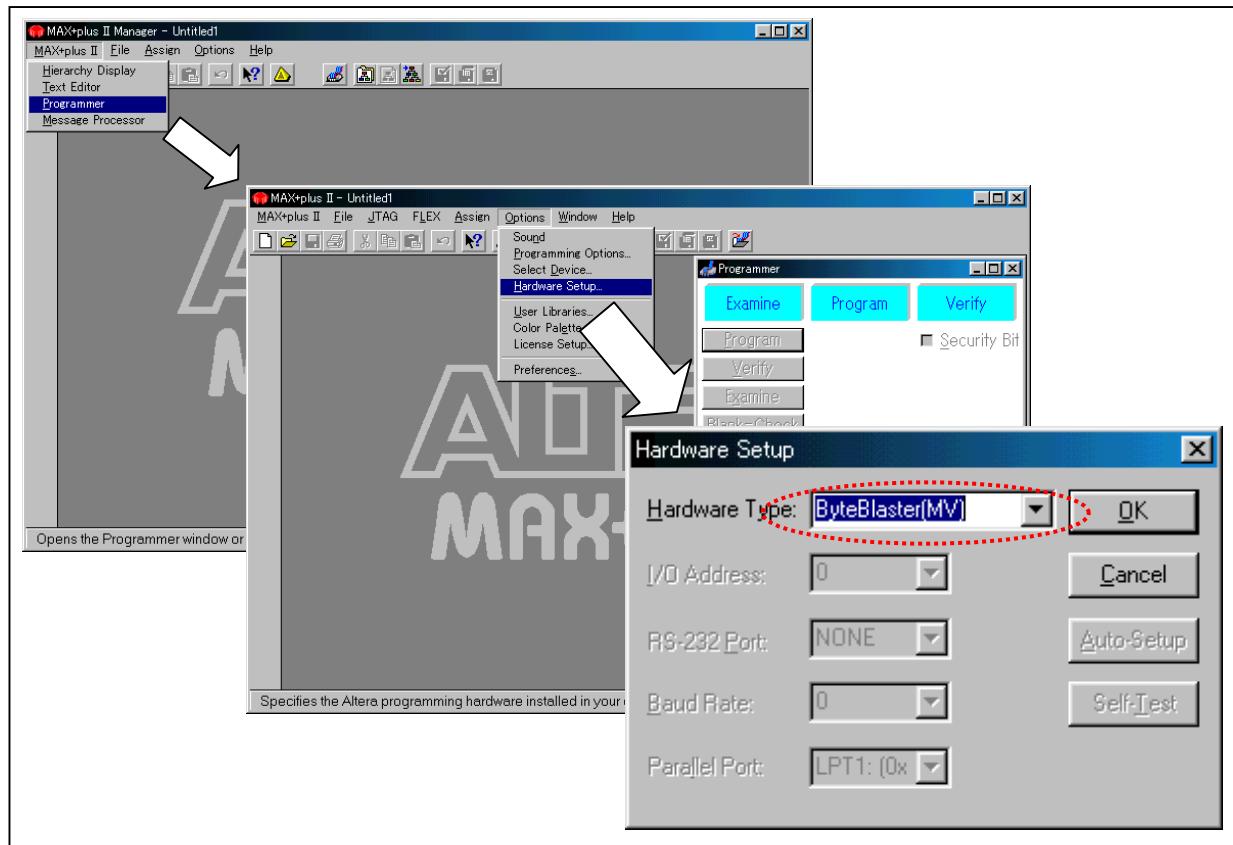


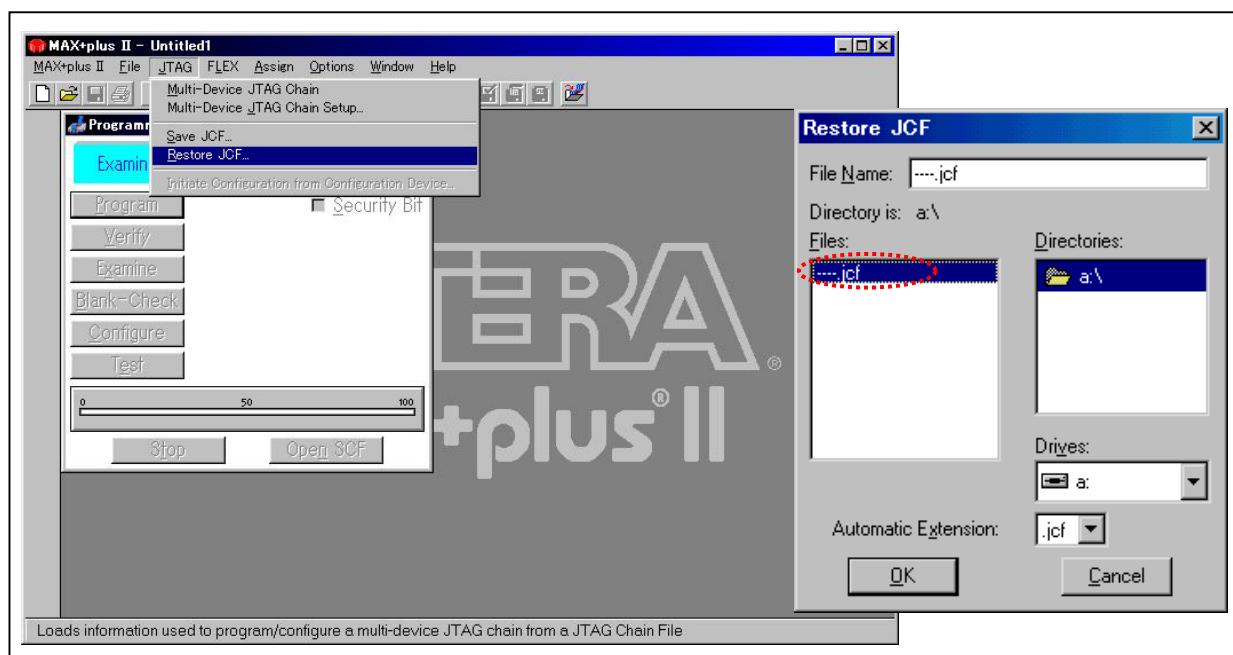
Figure 12-3-1 Connection for CPLD writer

### C. Boot up the Ver. up Software and Ver. up Procedure

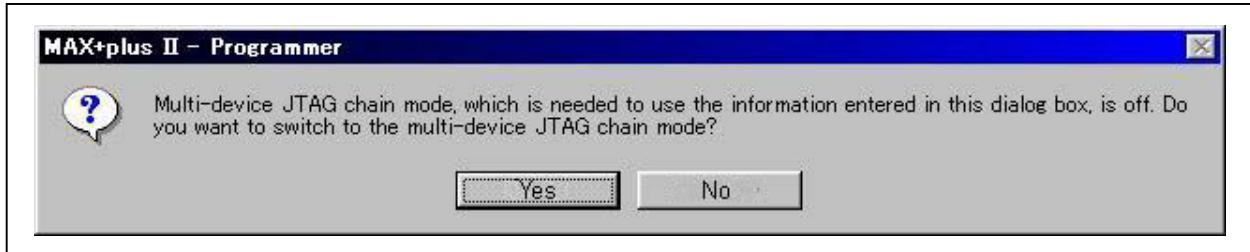
1. Insert floppy disk (which is included all files of the VVVS1\*\*\*) to floppy drive.
2. Select “start button” on the Windows Screen and then “Program” and then boot up the “MAX+plus II \*\*\* programmer only” so that the following menu appears.
3. On main window, select tab “MAX+plus II” and then “Programmer”.
4. On main window (Programmer window is displayed), select tab “Option” and then “Hardware Setup”.
5. On Hardware Setup dialog, set the “Hardware Type” to “Byte Blaster (MV) ”.



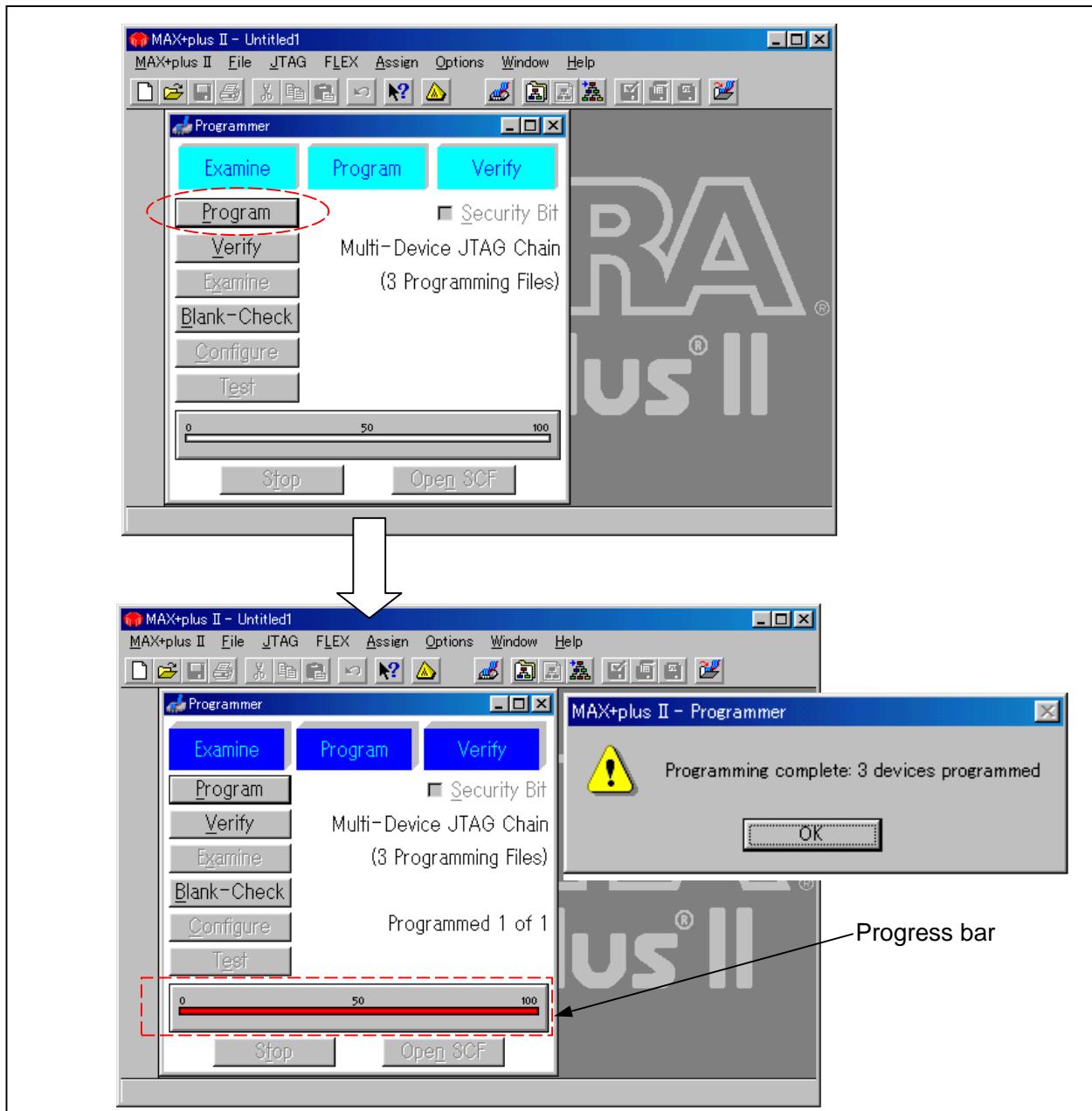
6. On main window, select tab “JTAG”, and then select “Restore JCF...”.
7. Select the floppy drive and then, select the “jcf format file (\*\*\*.jcf) on dialog box of Restore JCF” and then press “OK” button.



8. If the following message appeared, Press “Yes” button.



9. Click the “Program” button on Programmer dialog.  
 10. When Progress Bar reaches at point of **100**, the message “Programming Complete” appears, then PLD version upgrade is completed. Click “OK” button on the **Programming complete** message Dialog.  
 11. Confirm that PLD version of VTR is updated. (refer to INF-10)



\* MAX+PLUS are registered trademarks of Altera Corporation.

\*Windows95 and Windows98 are registered trademarks of Microsoft Corporation.

## **6. GAMMA Data Backup (/Restore) Method**

This unit memorizes gamma correction data in EEPROM (IC6203) on the MAIN circuit board. Therefore, when exchanging the MAIN circuit board or EEPROM (IC6203), backup the gamma correction data at the personal computer in advance and restore it data exchanged EEPROM.

### **6-1. preparations of Backup/Restore the GAMMA Data**

#### **6-1-1 Required Items for backup and restore**

- Gamma Adjustment Software  
VFK1893
- PC Windows95,98 or over
- RS-232C cable (9P straight cable)

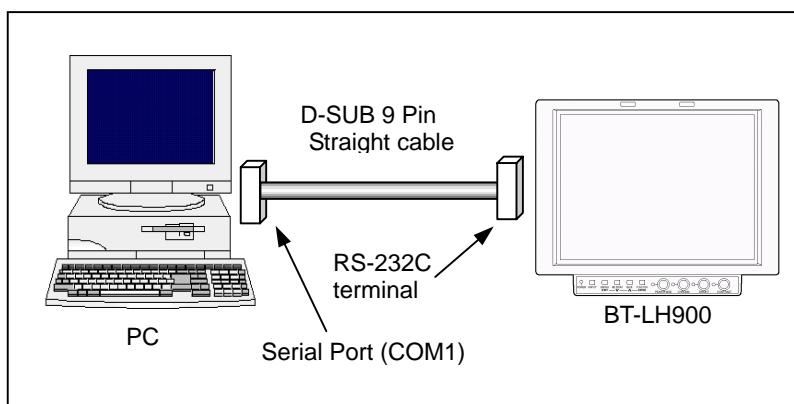
#### **6-1-2. Installation of Gamma Adjustment Software**

Copy the following file to a directory of your choice on the PC.

- VFK1893

#### **6-1-3. Connection**

- Switch the unit's power off, and connect the RS-232C cable (9P straight cable) to the unit's RS-232C terminal (D-Sub 9Pin) and the PC as shown below.



## 6-2. Data Backup Procedure

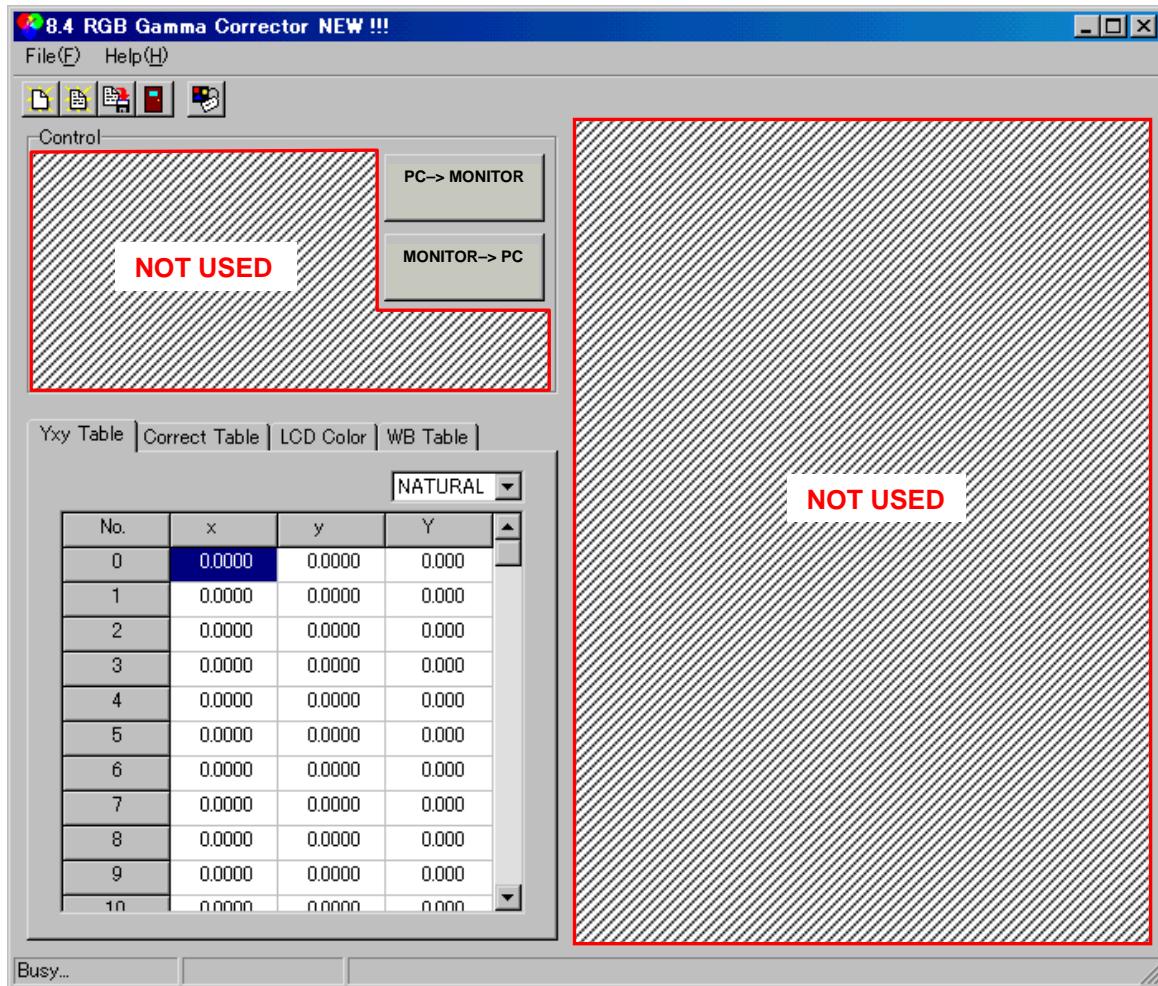
## 11. Turn ON the monitor and PC.

12. Execute the "**Corrector.exe**" and boot up the gamma adjustment software.



13. Main window is displayed as follows.

14. Click the “**MONITOR->PC**” button and download starts.



15. When message “Complete” appears, click the “OK” button.

NOTE: When click the "Correct Table" button, the gamma correction data can be confirmed.



16. When saving data which was download in the Gamma Adjustment software, Click the "File" tab and select the "Save As" button and specify the optional folder of the PC.

### 6-3. Data Restore Procedure

1. Execute "**Corrector.exe**" and boot up the gamma adjustment software start.
2. Main window is displayed.
3. Click the "File" tab and select the "Open", and then read the gamma correction data, which saved in advance.
4. Click the "**PC→MONITOR**" button so that the gamma correction data restore in EEPROM(IC6203).
5. Click the "OK" button on the "Complete" message to end programming.

# SECTION 2

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## ELECTRICAL ADJUSTMENTS

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### CONTENTS

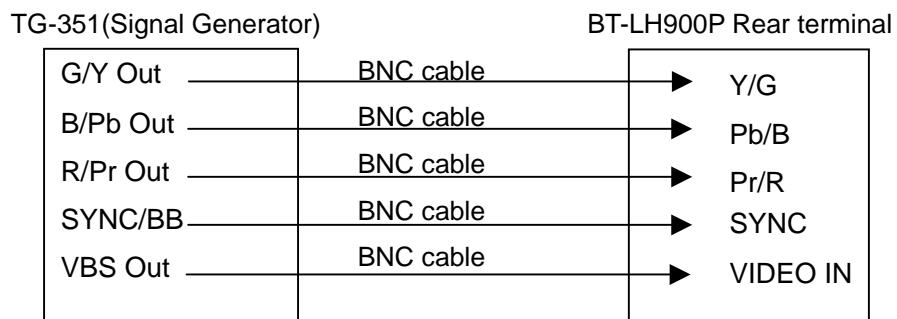
<b>1. ADC level adjustment.....</b>	<b>EAD-1</b>
1-1Preparations.....	EAD-1
1-2ADC level adjustment. ....	EAD-2
<b>2. TP and VR Location / Parts Location Table.....</b>	<b>EAD-4</b>

# 1. ADC level adjustment

## 1-1. Preparations

M.EQ	Digital test signal generator TG351A (Shibasoku)
CABLE	5 BNC cable

<Connection Diagram>



NOTE: Use cable less than 3 meters.

1. Follow the diagram to connect the signal generator and the rear terminal of BT-LH900P with the BNC cables.
2. Switch on the signal generator and LCD monitor. Allow the LCD monitor to warm for 10 minutes after switching it on before making adjustment.
3. Remove the service cover of the rear panel and set DIP-switch(SW3601) as follow.

DIPSW3601	POSITION
1	ON
2	OFF
3	OFF
4	OFF
5	OFF
6	ON

◀ SETTING

## 1-2. ADC level adjustment

1. Open the service menu. (While simultaneously pressing the [INPUT]+[MENU/EXIT]+[HD ZOOM/v] buttons, switch on the unit's power. And press the [MENU/EXIT] button once again.)
2. Select "ADC CHECK" and press the [ENTER] button to go to the item's sub menu.

```
[ADC AUTO CHECK]
YpbPr 480I 480P 1080
RGB   480I 480P 1080
VIDEO NTSC PAL
    COMPLETE : GREEN
    UNCOMPLETE : BLEU
    (AUTO)    Y/G    PB/B    PR/R
    OFFSET      0      0      0
    CONTRAST     0      0      0
    LEVEL       0      0      0
INPUT 1080I-YPBPR
& PRESS ENTER KEY
```

3. Follow the instructions at the bottom of the screen to input the signals shown in this table.

Order	LCD Display	Signal input	Input format
①	INPUT1080I-YPBPR	1080/60I	YPBPR
②	INPUT1080I-RGB	1080/60I	RGB
③	INPUT480P-YPBPR	480/60P	YPBPR
④	INPUT480P-RGB	480/60P	RGB
⑤	INPUT480I-YPBPR	480/60I	YPBPR
⑥	INPUT480I-RGB	480/60I	RGB
⑦	INPUT NTSC-VIDEO	480/60I	VBS
⑧	INPUT PAL-VIDEO	480/60I	VBS

(Signal for adjustment: 100% full field color bar)

4. Confirm that the color bar is on the LCD and press the [ENTER] button. Measurement starts automatically.
5. Once measurement of one signal finishes, the next signal is displayed. Follow the instructions to select the type of signal on the test signal generator and press the [ENTER] button.

**NOTE:**

1. If in steps 4 and 5 the color bar fails to appear normally or messages fail to appear, press [v], or change to another signal then return to the correct signal, or disconnect the cables connecting the LCD and signal generator and then reconnect them.
2. The message shown below appears when ADC adjustment couldn't be performed. Make sure the correct signal is being used or check the connections.
3. If this error occurs, start ADC adjustment from the beginning again.

```
ERROR!!
PRESS MENU/EXIT KEY
```

6. All the measuring signals on the LCD monitor change to green letters and the following message appears when measurement is complete.

ADJUST--COMPLETE!!  
PRESS ENTER KEY

7. Press the [ENTER] button to save the measurement data. The following message appears on the LCD when saving is complete. Press the [MENU/EXIT] button to finish the procedure.

WRITE EEPROM--COMPLETE!!  
PRESS MENU/EXIT KEY

8. Return DIP-switch(SW3601) as follow.

DIPSW3601	POSITION
1	ON
2	OFF
3	OFF
4	OFF
5	OFF
6	OFF

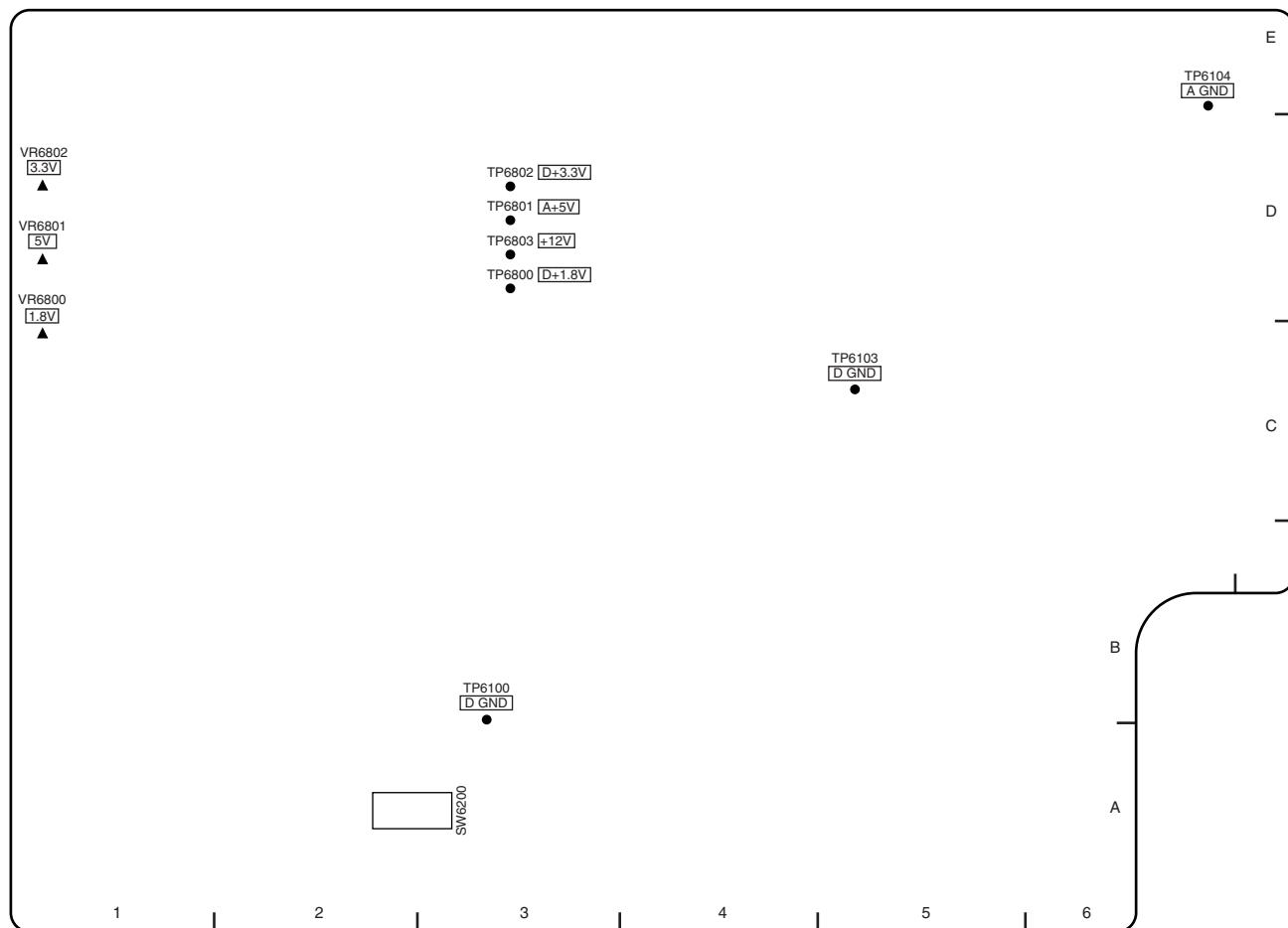
⬅ SETTING

## 2.TP and VR Location / Parts Location Table

### MAIN P.C.BOARD

COMPONENT SIDE

REF	LOC	REF	LOC	REF	LOC	REF	LOC	REF	LOC	REF	LOC
IC6100	B3	IC6402	E5	IC6807	D2	P6105	E5	Q6803	D1	TP6803	D3
IC6101	C3	IC6403	E4	IC6808	C1	P6300	D4	Q6804	D2	VR6800	C1
IC6102	C3	IC6404	C5	IC6810	E1	P6700	A5	Q6805	D1	VR6801	D1
IC6103	B3	IC6503	B4	IC6811	E1	P6800	E2	QR6802	C1	VR6802	D1
IC6104	C3	IC6602	C6	IC6812	E1	P6801	B2	QR6803	C2	X6200	B2
IC6203	A2	IC6603	C6	IC6813	E1	Q6300	E5	SW6200	A2	X6500	A3
IC6204	A1	IC6800	C1	IC6816	C1	Q6301	E5	TP6100	B3		
IC6205	A1	IC6801	C1	P6100	C3	Q6302	E5	TP6103	C5		
IC6206	A1	IC6802	D1	P6101	E7	Q6303	D6	TP6104	E6		
IC6302	D7	IC6803	D1	P6102	E3	Q6800	C2	TP6800	D3		
IC6304	D7	IC6805	D1	P6103	E6	Q6801	C1	TP6801	D3		
IC6305	C7	IC6806	D1	P6104	A2	Q6802	D2	TP6802	D3		

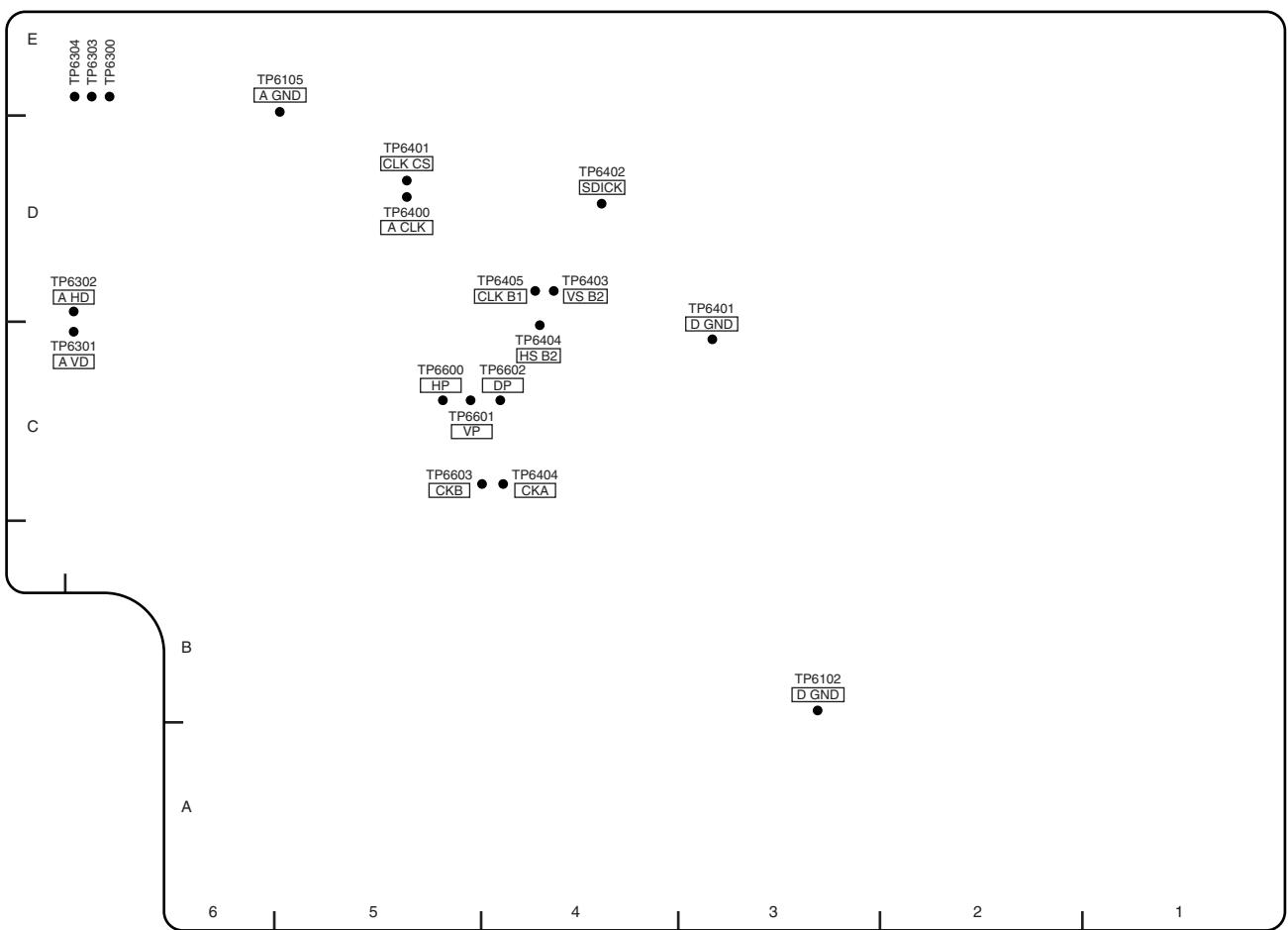


(COMPONENT SIDE)

# MAIN P.C.BOARD

FOIL SIDE

REF	LOC								
IC6105	E6	IC6502	B4	Q6102	B2	QR6105	C2	TP6400	D5
IC6106	C3	IC6600	C5	Q6304	D7	QR6106	C2	TP6401	D5
IC6200	B2	IC6601	C6	Q6305	D6	QR6800	D3	TP6402	D4
IC6201	B1	IC6604	B6	Q6306	D6	QR6801	D3	TP6403	D4
IC6202	A2	IC6700	B5	Q6307	E5	TP6101	C3	TP6404	C4
IC6300	D6	IC6804	E3	Q6806	D3	TP6102	A3	TP6405	D4
IC6301	C6	IC6809	D1	Q6807	C1	TP6105	E5	TP6600	C5
IC6400	D4	IC6814	C1	QR6100	E7	TP6300	E6	TP6601	C5
IC6401	C4	IC6815	B1	QR6101	E7	TP6301	C6	TP6602	C4
IC6405	E4	IC6817	D3	QR6102	B3	TP6302	D6	TP6603	C4
IC6500	A4	IC6818	E3	QR6103	B3	TP6303	E6	TP6604	C4
IC6501	B4	Q6101	B3	QR6104	B3	TP6304	E6		

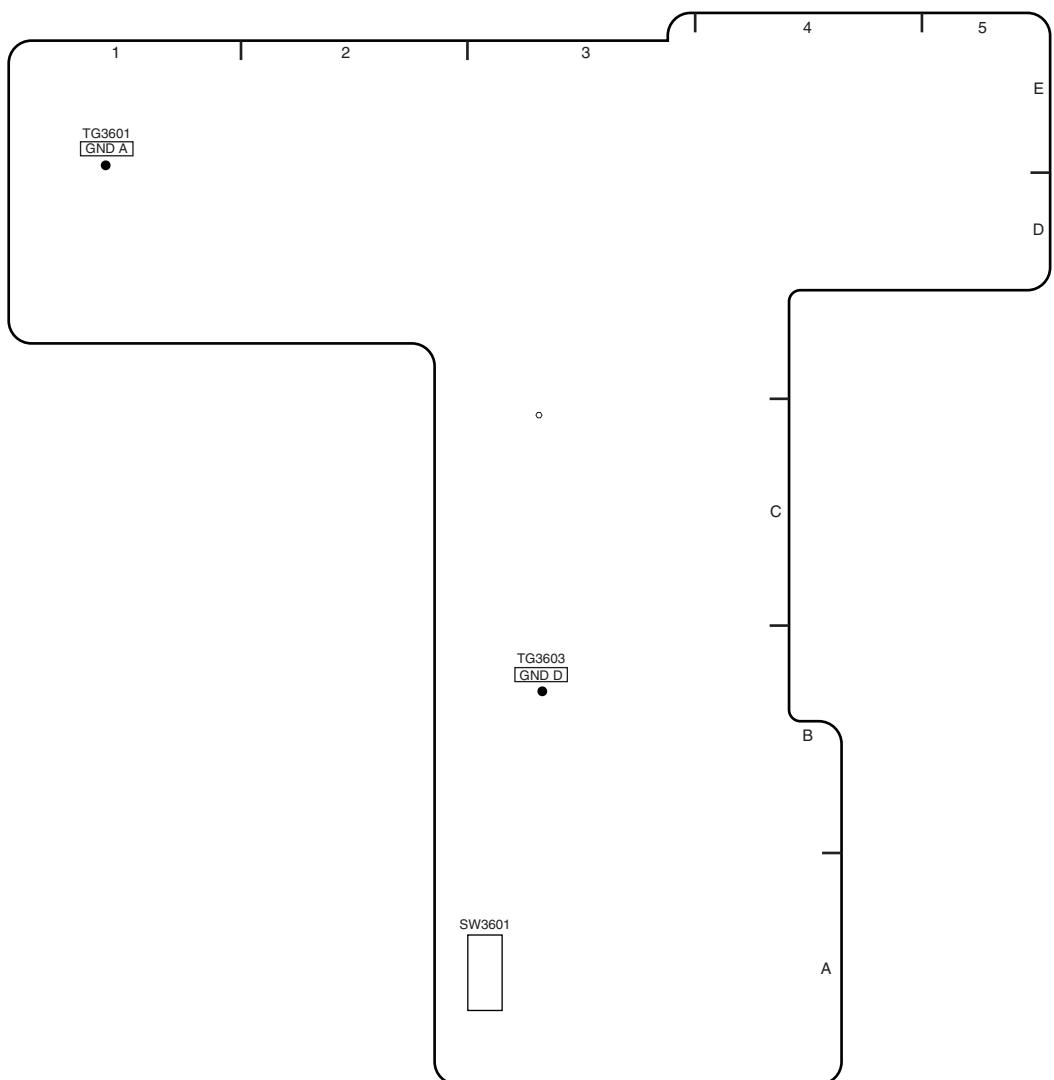


(FOIL SIDE)

## SUB P.C.BOARD

COMPONENT SIDE

REF	LOC	REF	LOC	REF	LOC	REF	LOC
IC3101	E2	IC3303	E2	Q3109	E2	Q3306	D3
IC3102	E2	IC3304	D2	Q3202	C3	Q3308	D3
IC3201	C3	P3402	A4	Q3206	D3	Q3311	D2
IC3202	D3	P3403	B4	Q3208	C3	Q3313	D2
IC3203	C3	P3605	B3	Q3211	C3	Q3315	D1
IC3204	C3	Q3102	E2	Q3213	C3	SW3601	A3
IC3301	E3	Q3105	E2	Q3217	C3	TG3601	E1
IC3302	E3	Q3107	E2	Q3302	D3	TG3603	B3

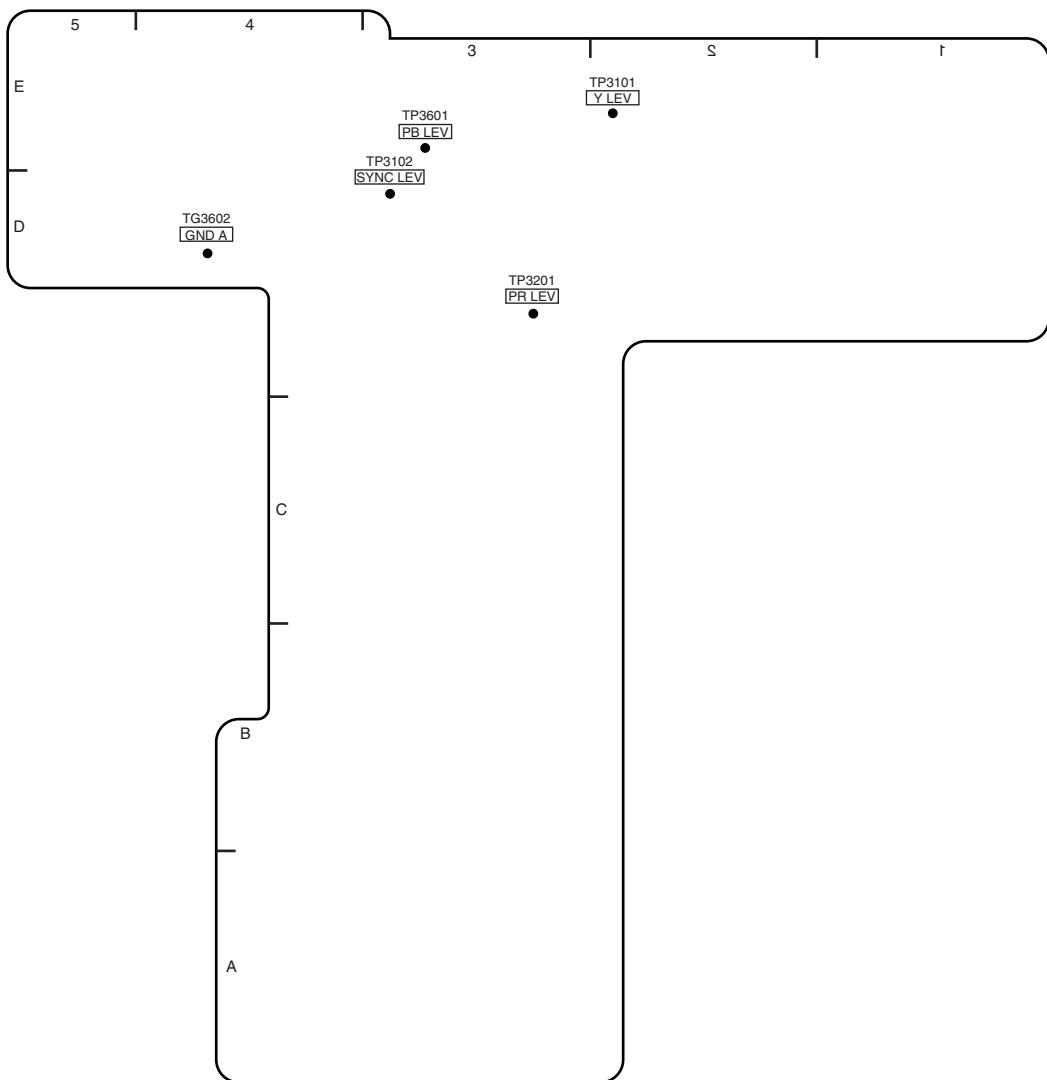


(COMPONENT SIDE)

# SUB P.C.BOARD

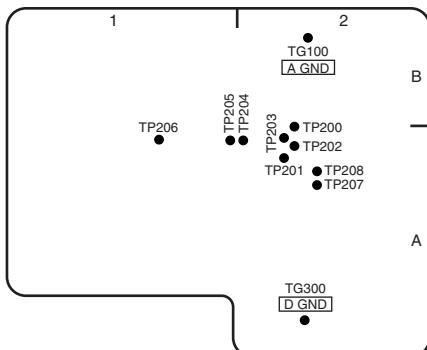
FOIL SIDE

REF	LOC	REF	LOC	REF	LOC	REF	LOC	REF	LOC
IC3403	B3	Q3106	D3	Q3207	D3	Q3303	D3	Q3316	D2
P3101	E4	Q3108	D2	Q3209	C3	Q3304	D3	Q3317	D2
P3602	E3	Q3110	E2	Q3210	C3	Q3305	E3	TG3602	D4
P3603	D1	Q3111	D4	Q3212	C3	Q3307	D3	TP3101	E2
P3604	D2	Q3201	D3	Q3214	C3	Q3309	D3	TP3102	D3
Q3101	D3	Q3203	C3	Q3215	C3	Q3310	D3	TP3201	D3
Q3103	E3	Q3204	C3	Q3216	C3	Q3312	D2	TP3301	E3
Q3104	E2	Q3205	D3	Q3301	D3	Q3314	D2		

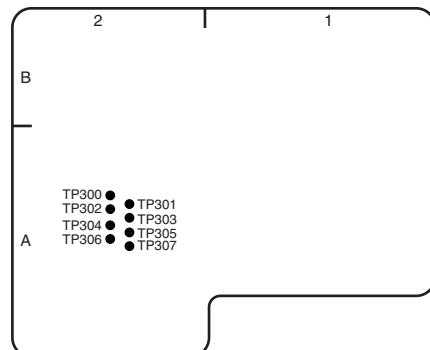


(FOIL SIDE)

## CVBS DEC P.C.BOARD

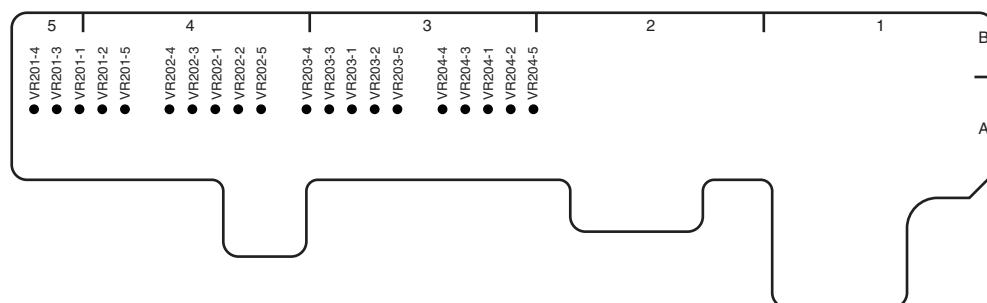


(COMPONENT SIDE)



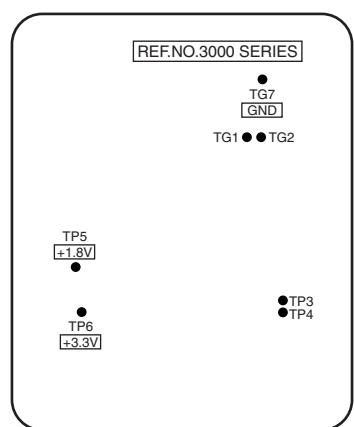
(FOIL SIDE)

## FRONT P.C.BOARD



(FOIL SIDE)

## SDI P.C.BOARD



(COMPONENT SIDE)

# SECTION 3

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## BLOCK DIAGRAMS

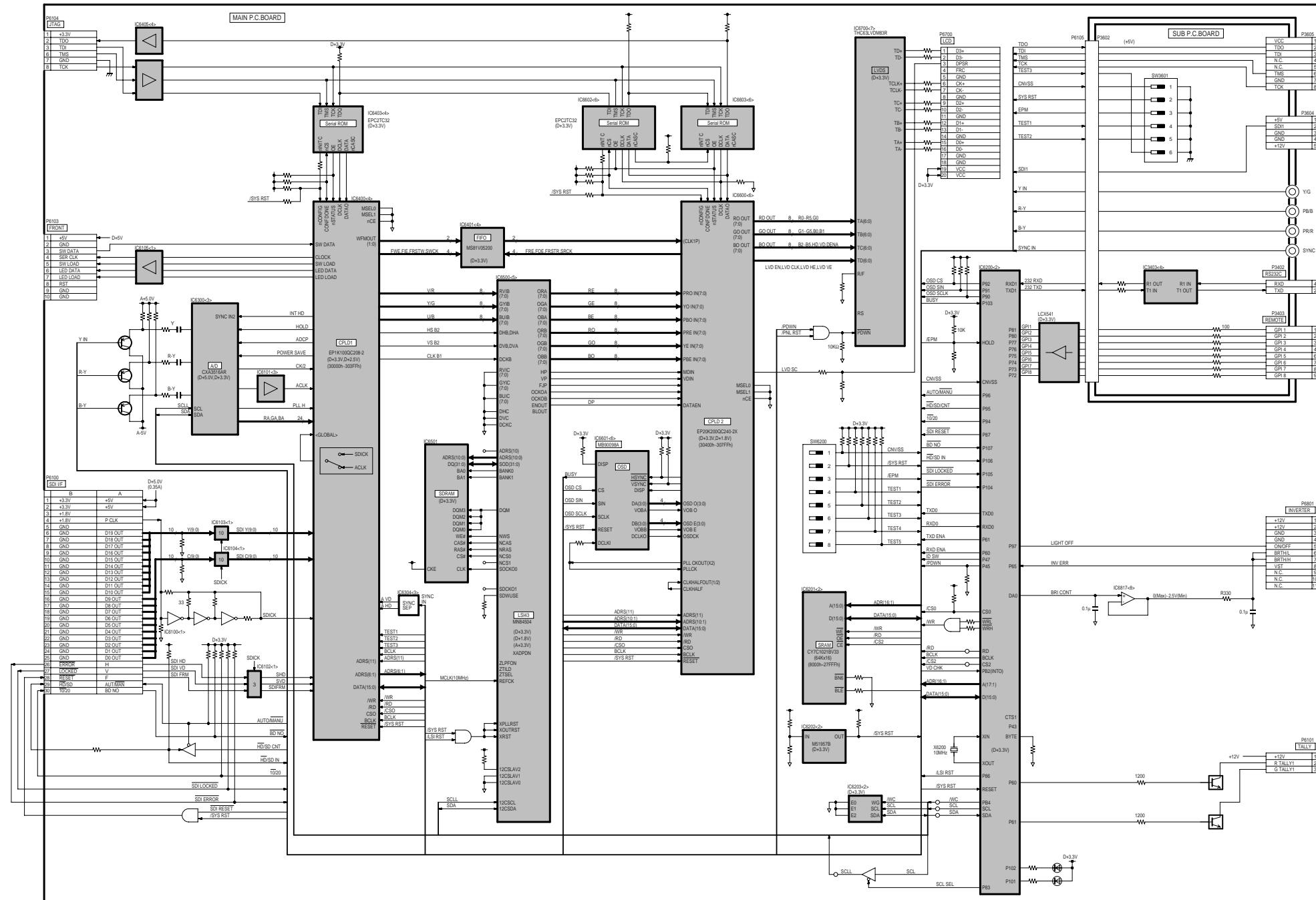
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### CONTENTS

BLOCK DIAGRAM .....	BLK-1
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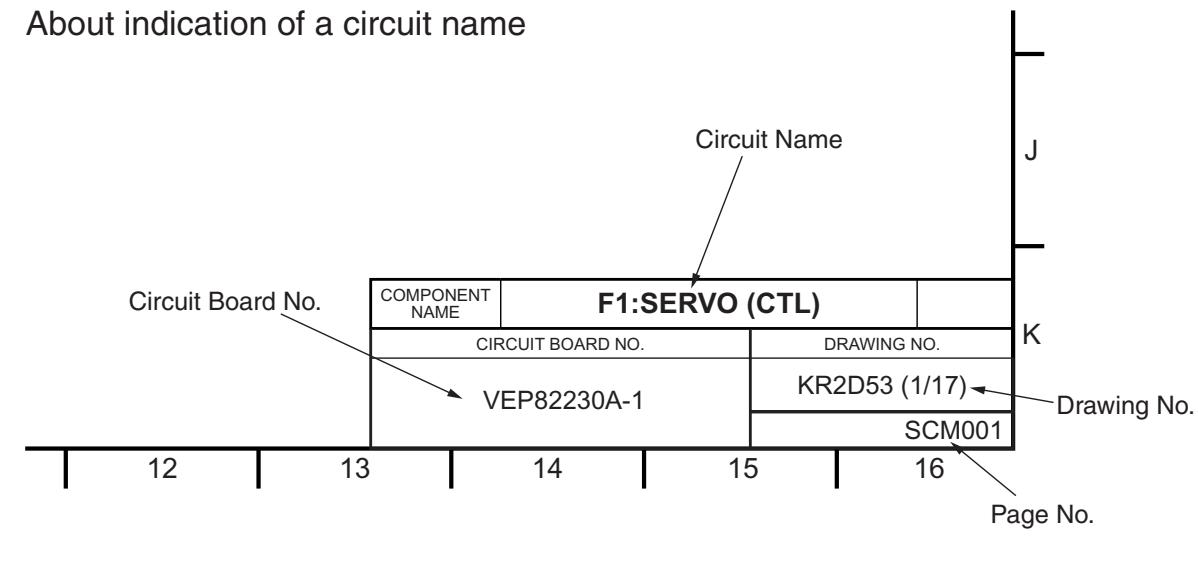
## BLOCK DIAGRAM



# SECTION 4

## SCHEMATIC DIAGRAMS

About indication of a circuit name



**NOTE:**

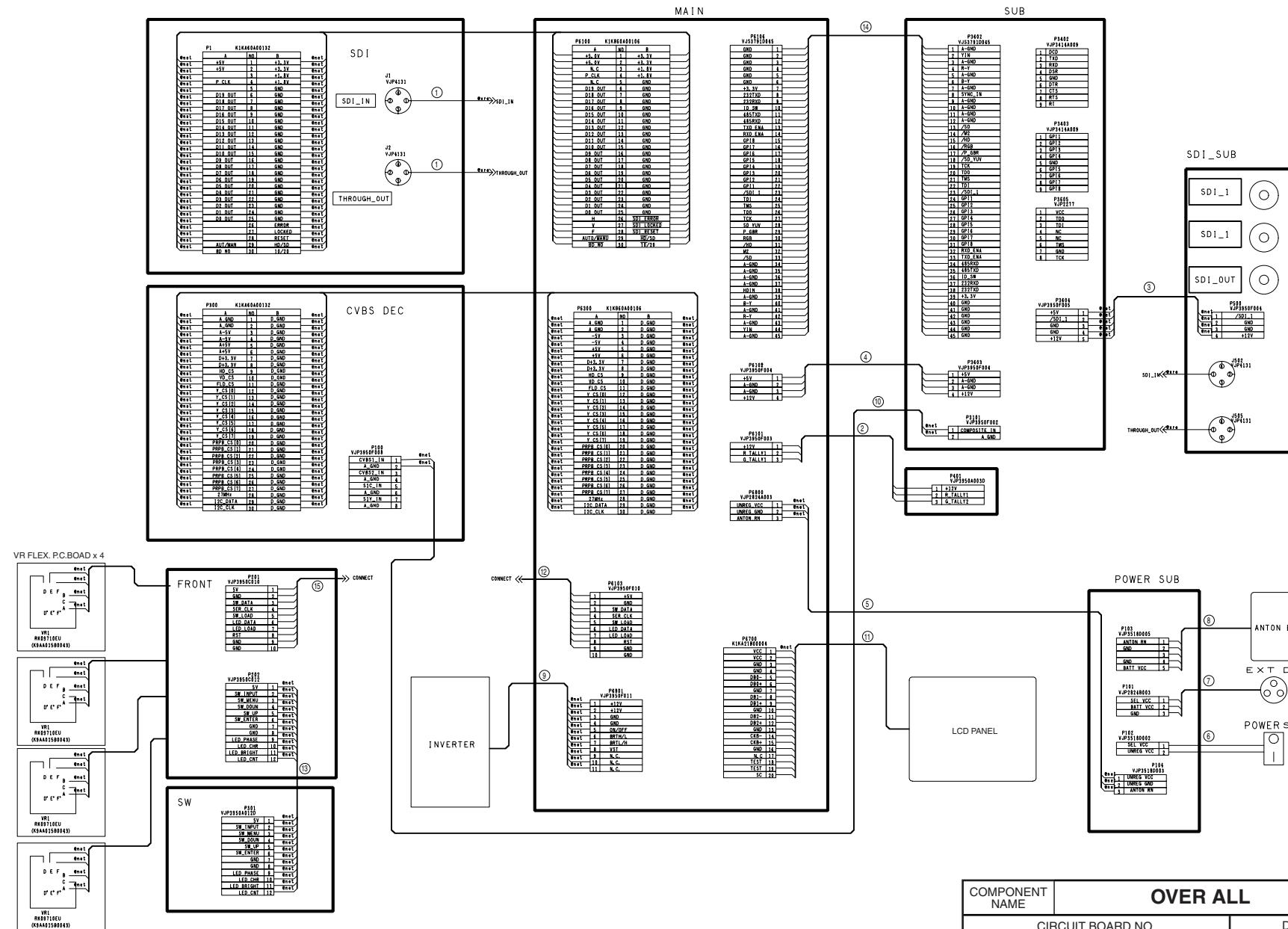
BE SURE TO MAKE YOUR ORDERS OF REPLACEMENT PARTS ACCORDING TO PARTS LIST

**IMPORTANT SAFETY NOTICE:**

COMPONENTS IDENTIFIED WITH THE MARK  HAVE THE SPECIAL CHARACTERISTICS FOR SAFETY. WHEN REPLACING ANY OF THESE COMPONENTS, USE ONLY THE SAME TYPE.

# CONTENTS

OVER ALL (1/1).....	SCM001
MAIN (CONNECT (1/8).....	SCM002
MAIN (LCD) (2/8).....	SCM003
MAIN (A/D) (3/8).....	SCM004
MAIN (FPGA1) (4/8).....	SCM005
MAIN (LSI43) (5/8).....	SCM006
MAIN (FPGA2) (6/8).....	SCM007
MAIN (LVDS) (7/8).....	SCM008
MAIN (REG) (8/8) .....	SCM009
SUB (Y IN) (1/5).....	SCM010
SUB (PR IN) (2/5) .....	SCM011
SUB (PB IN) (3/5) .....	SCM012
SUB (GPI IN) (4/5) .....	SCM013
SUB (CONNECT) (5/5) .....	SCM014
CVBS DEC (1/3) .....	SCM015
CVBS DEC (2/3) .....	SCM016
CVBS DEC (3/3) .....	SCM017
SDI (1/1).....	SCM018
SDI SUB (1/1) .....	SCM019
POWER SUB (1/1).....	SCM020
TALLY (1/1) .....	SCM021
FRONT (1/1) .....	SCM022
SW (1/1).....	SCM023



NOTE : The parts number of cable refer to the parts list (PRT-4)

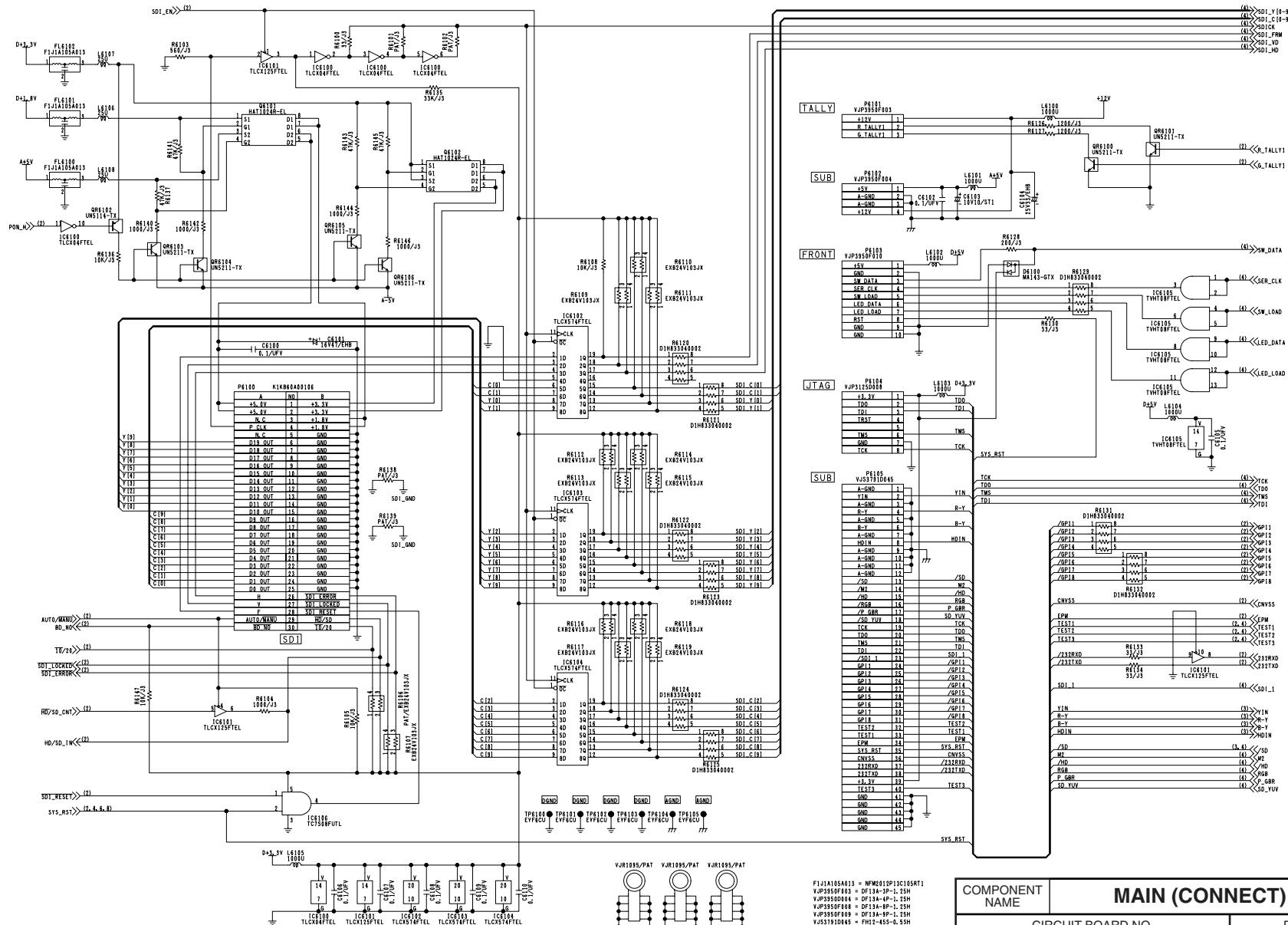
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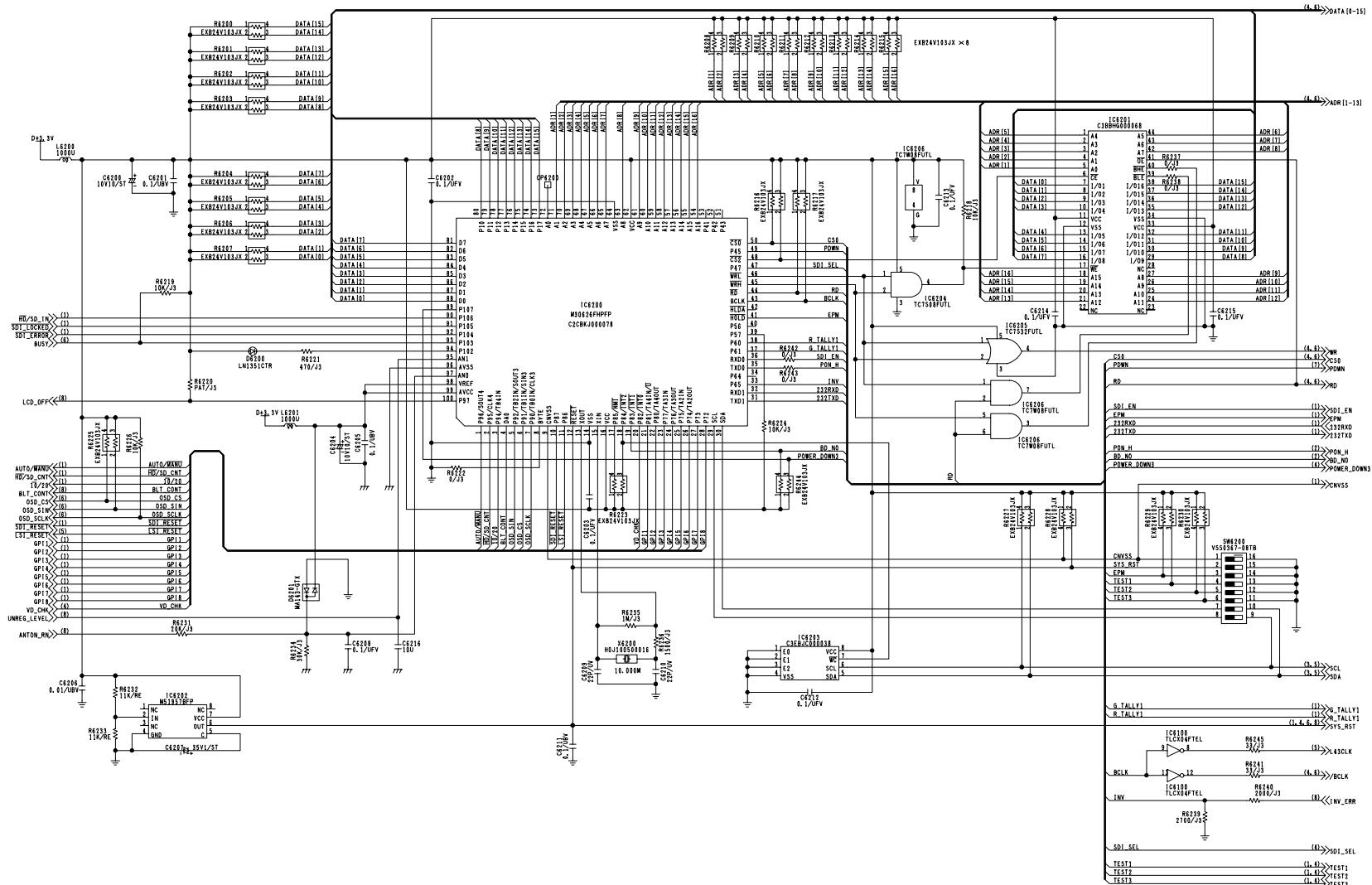
OVER ALL

01/01

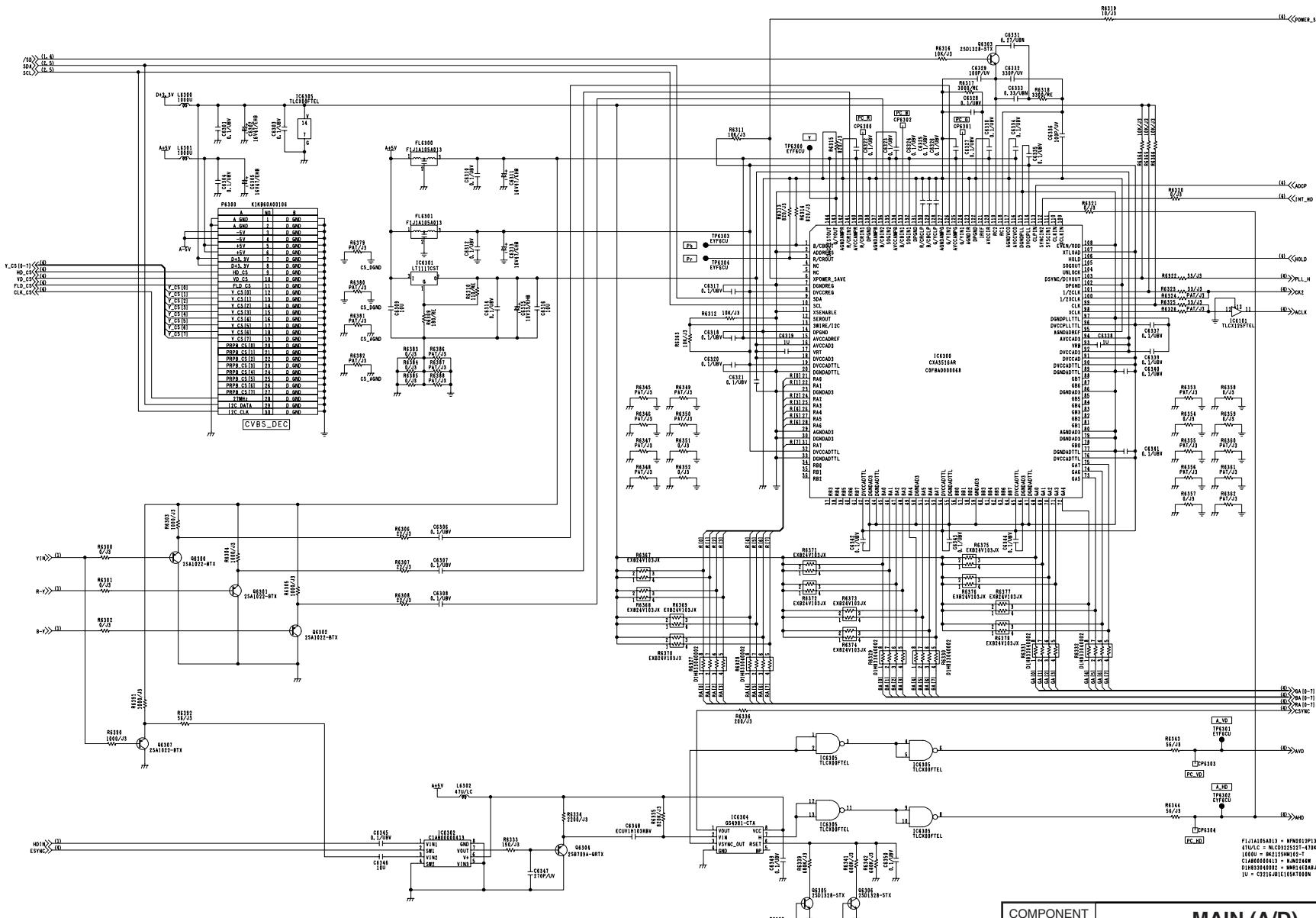
KR9A0026

SCM001

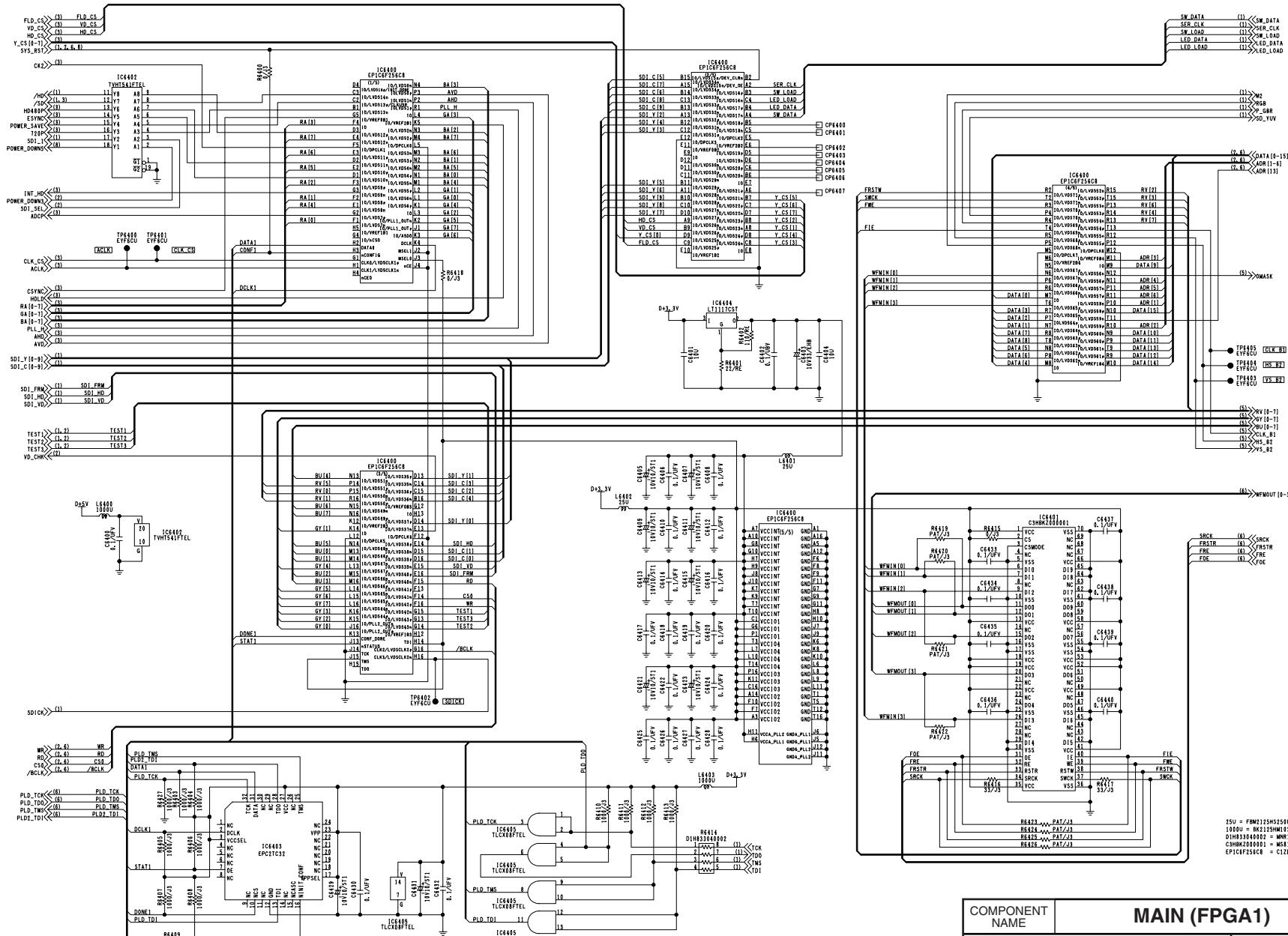




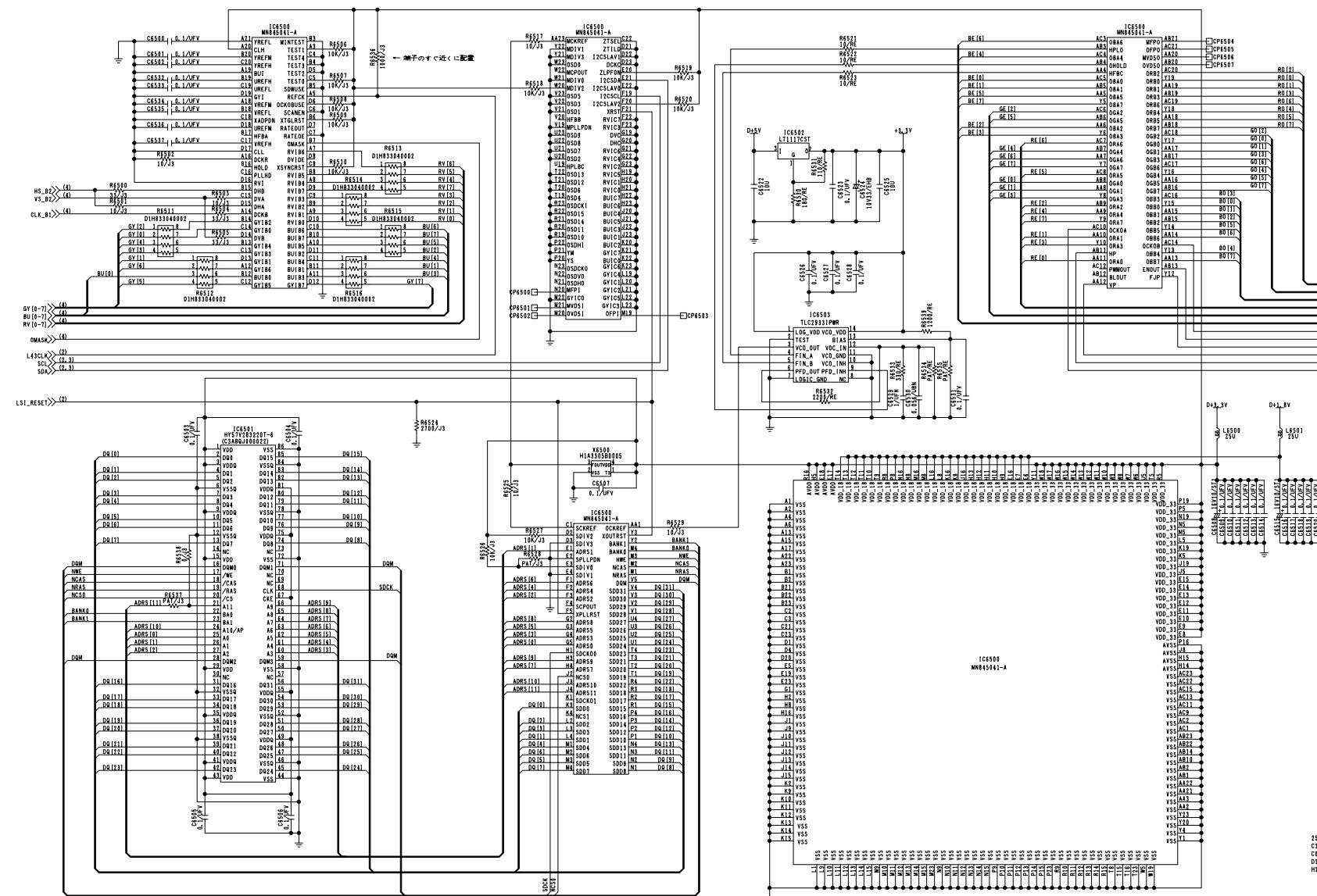
COMPONENT NAME	MAIN (LCD)		02/08
CIRCUIT BOARD NO.		DRAWING NO.	
VEP16104A		KR6W56	
		SCM003	



COMPONENT NAME	MAIN (A/D)	03/08
CIRCUIT BOARD NO.	DRAWING NO.	
VEP16104A	KR6W56	SCM004

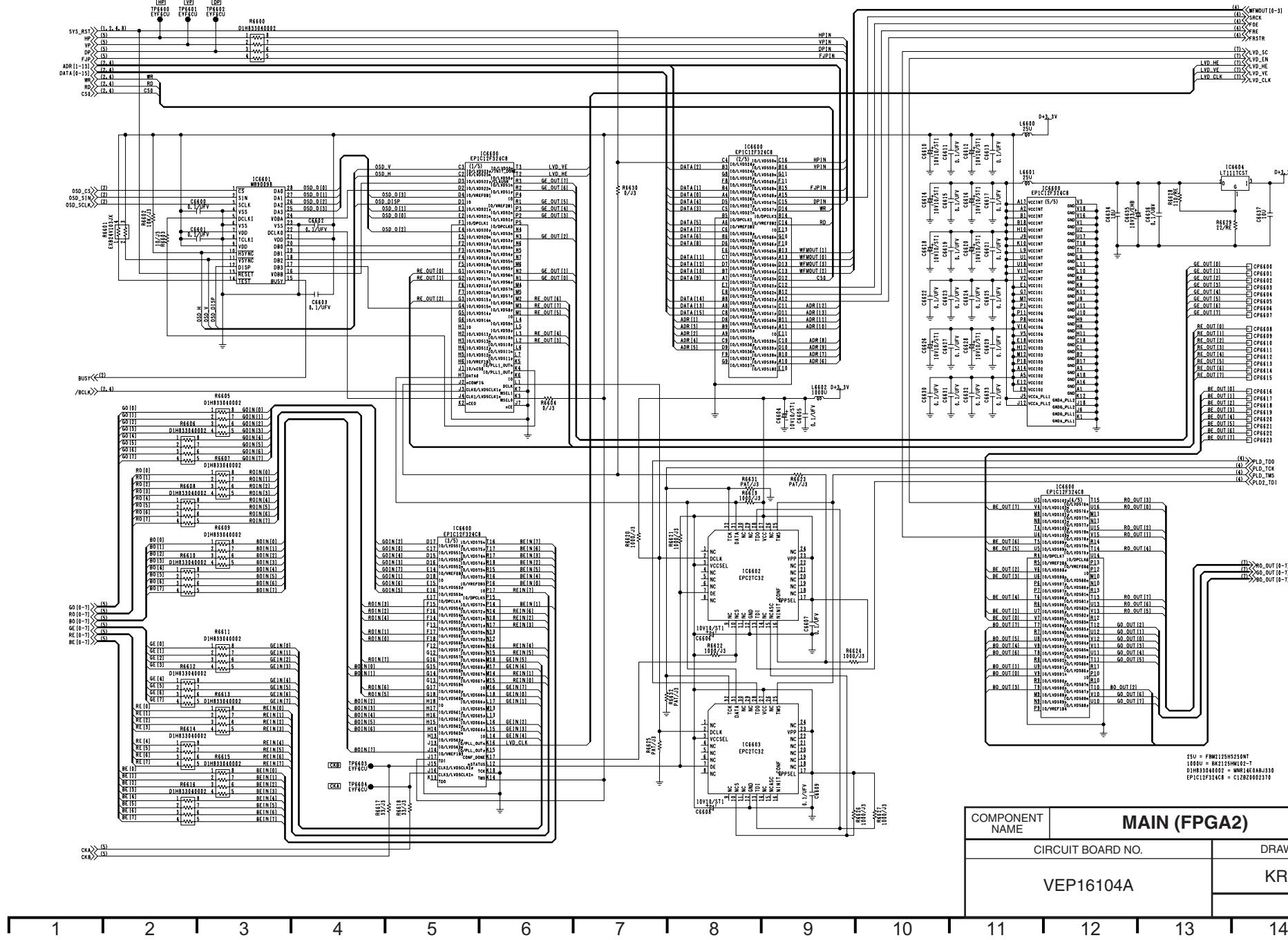


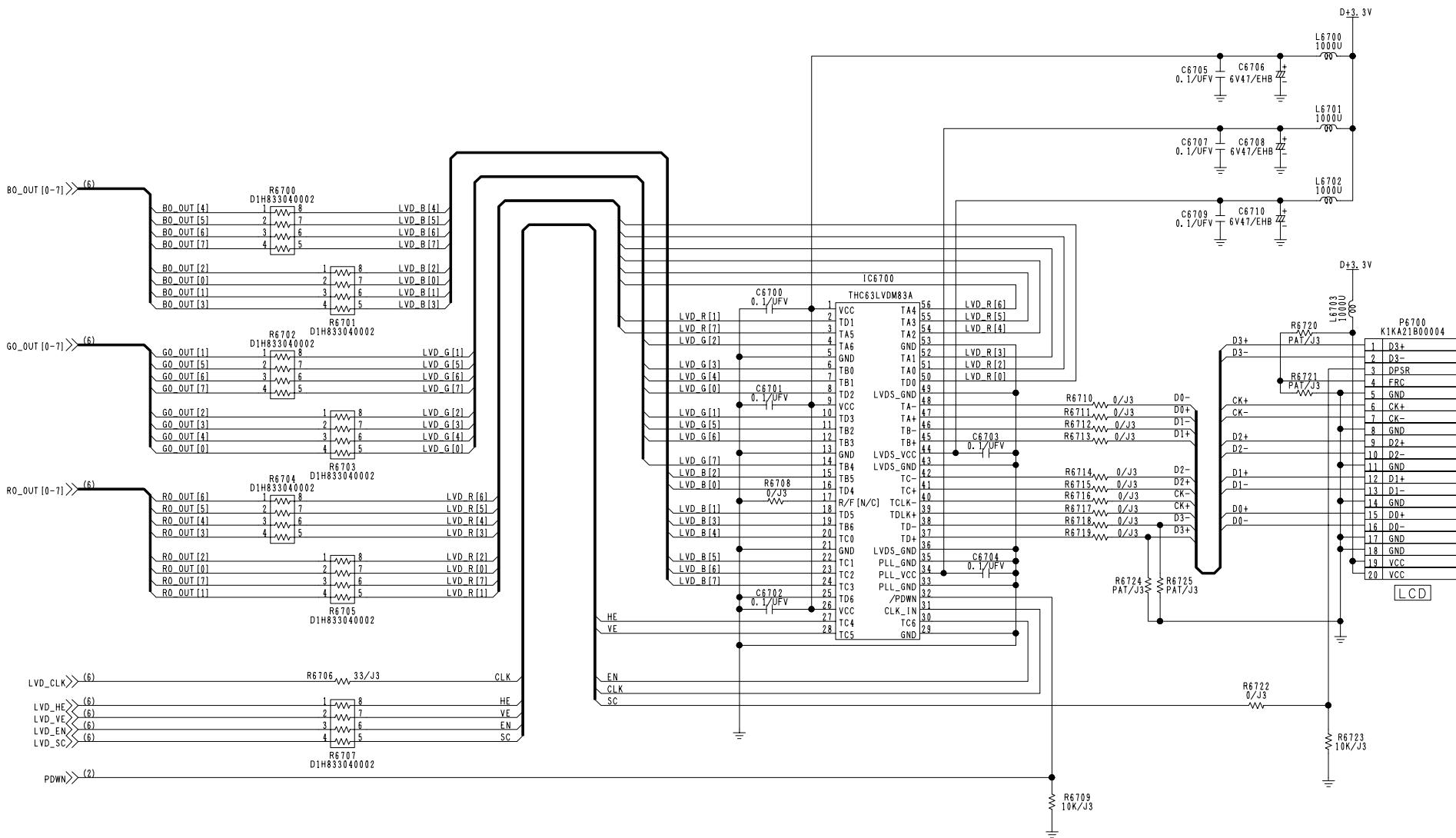
COMPONENT NAME	MAIN (FPGA1)	04/08
CIRCUIT BOARD NO.	DRAWING NO.	
VEP16104A	KR6W56	
		SCM005



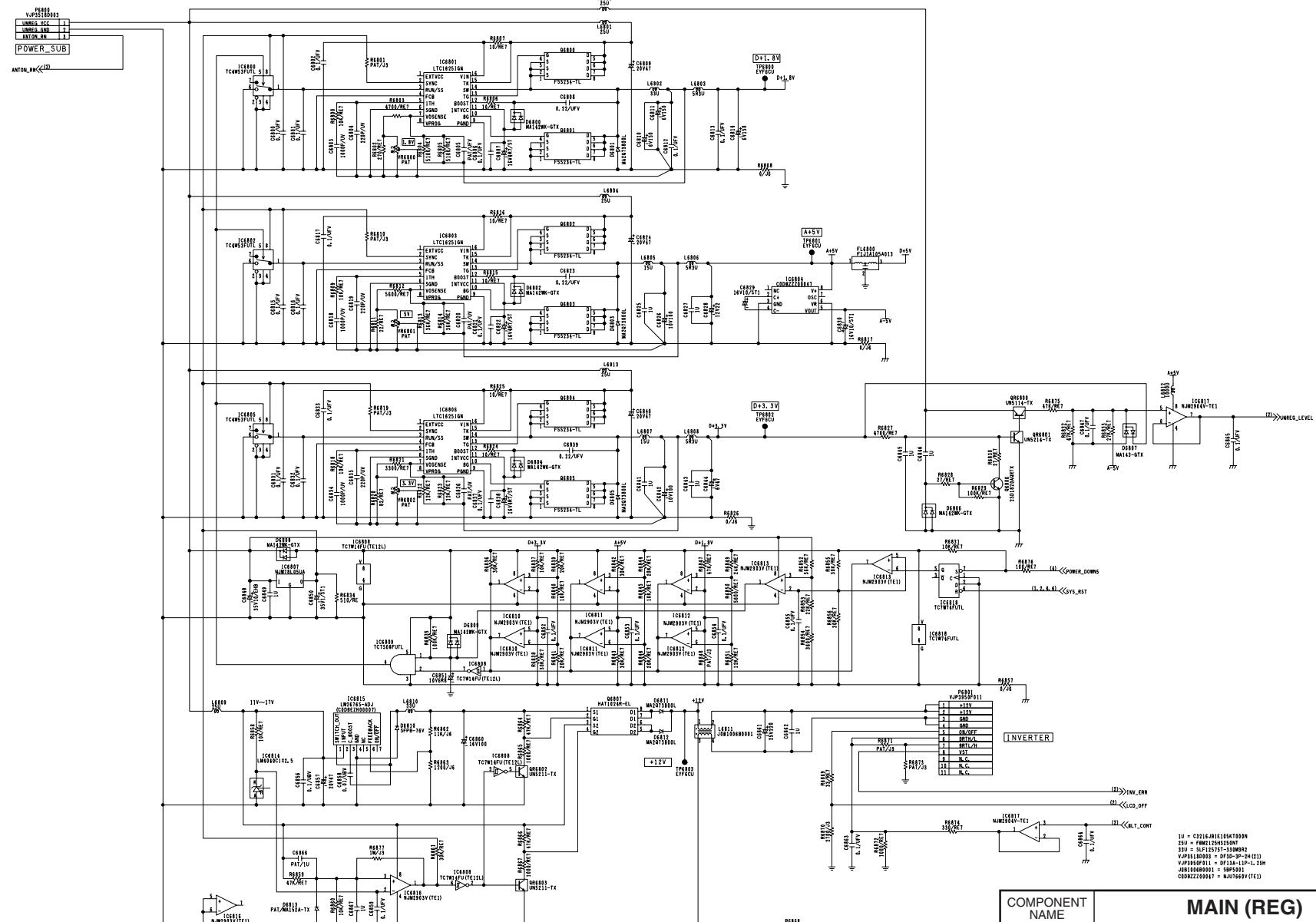
25U = FBW2125HS250NT  
CSABP000017 = MT48LC2M32B2TC  
C02BZ0000455 = TLC2934IPWR  
D1H833040002 = MNR14E0ABJ330  
H1A330500005 = FXO-61FL33MHZ

COMPONENT NAME	MAIN (LSI43)		05/08
CIRCUIT BOARD NO.	DRAWING NO.		
VEP16104A		KR6W56	J
		SCM006	





COMPONENT NAME	MAIN (LVDS)	07/08
CIRCUIT BOARD NO.	DRAWING NO.	
VEP16104A	KR6W56	
		SCM008



Y

/HD&gt;&gt;(2,3,5)

PB/B

/SD&gt;&gt;(5)

VIDEO  
THROUGH

/M2&gt;&gt;(2,3,5)

SYNC

A

B

C

D

E

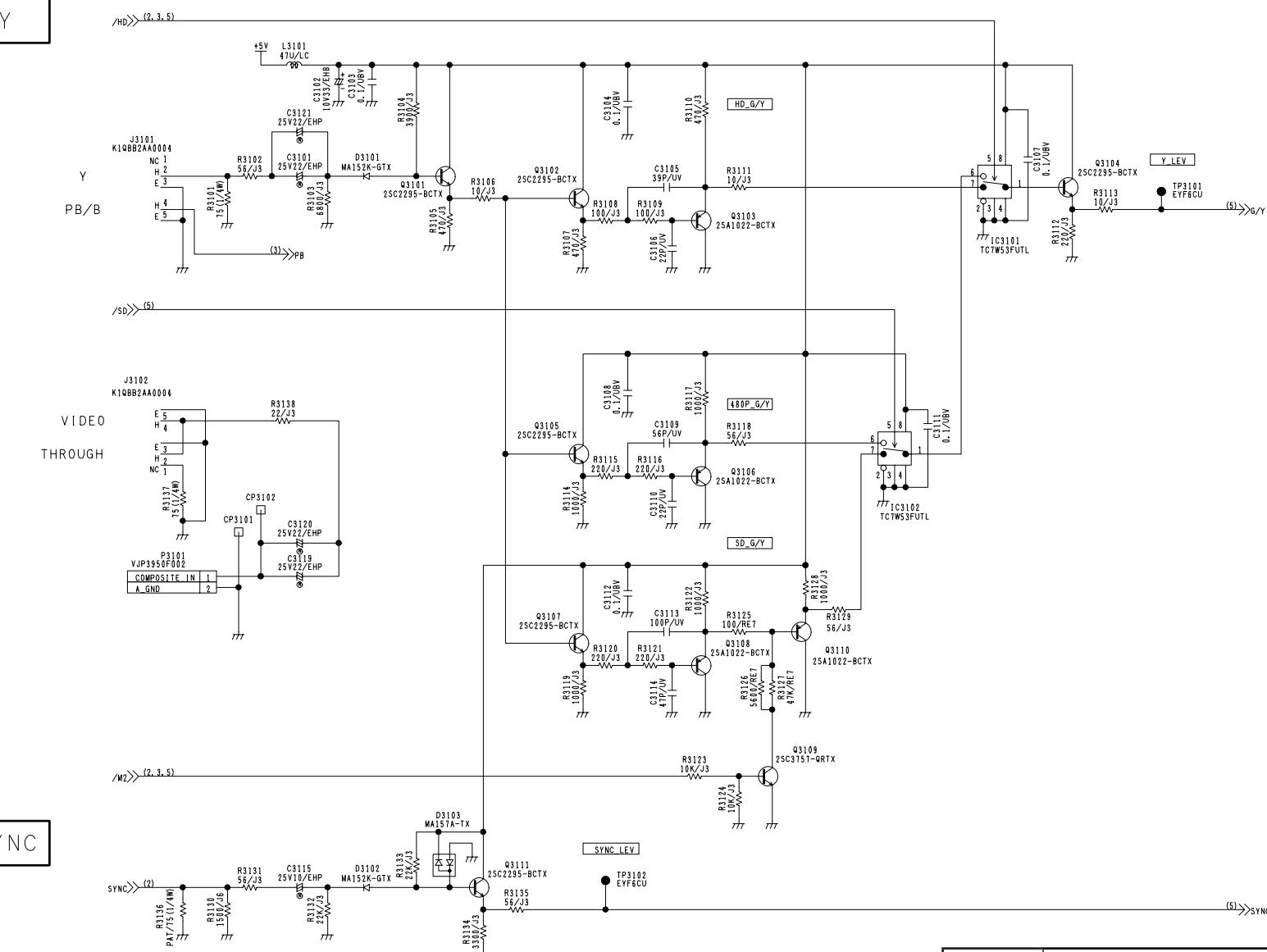
F

G

H

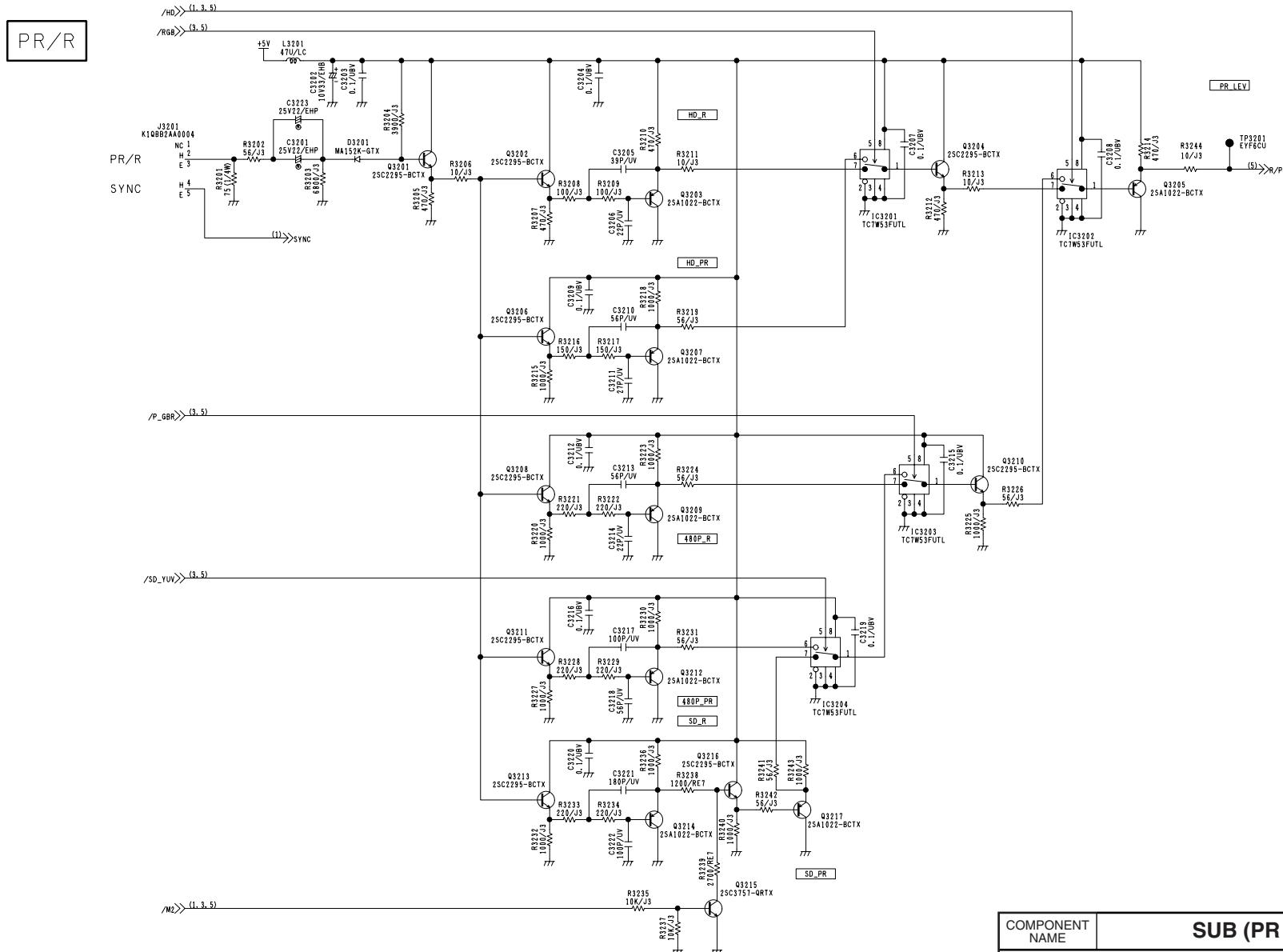
I

J



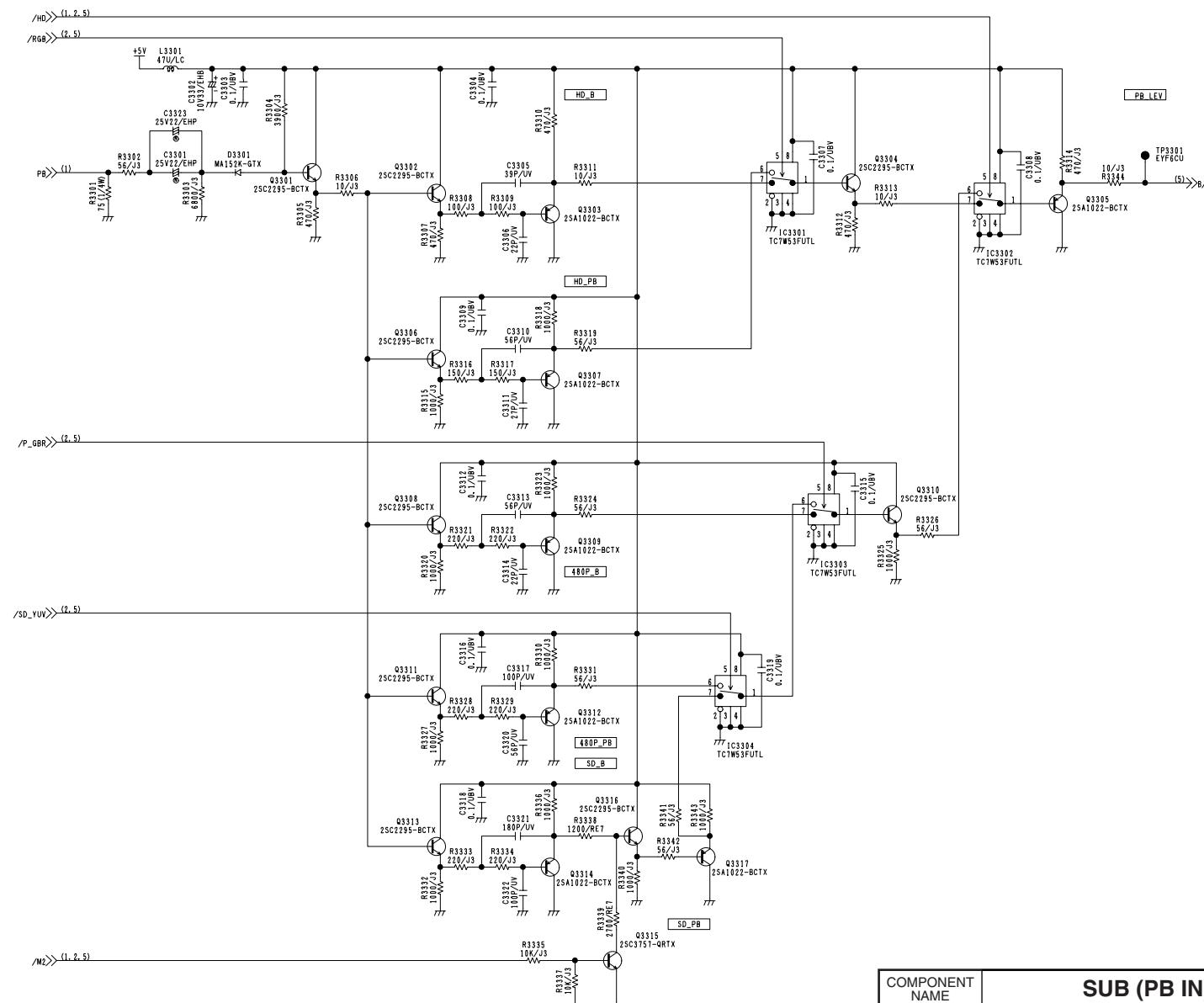
COMPONENT NAME	SUB (Y IN)	01/05
CIRCUIT BOARD NO.		DRAWING NO.
VEP13114A	KR30558	SCM010

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15



COMPONENT NAME	SUB (PR IN)		02/05	
CIRCUIT BOARD NO.		DRAWING NO.		
VEP13114A		KR30558		
		SCM011		
11	12	13	14	15

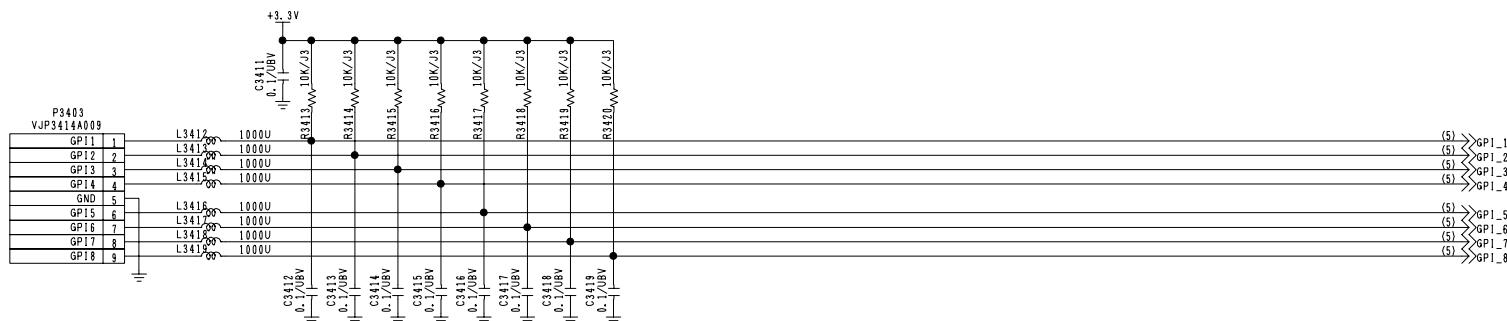
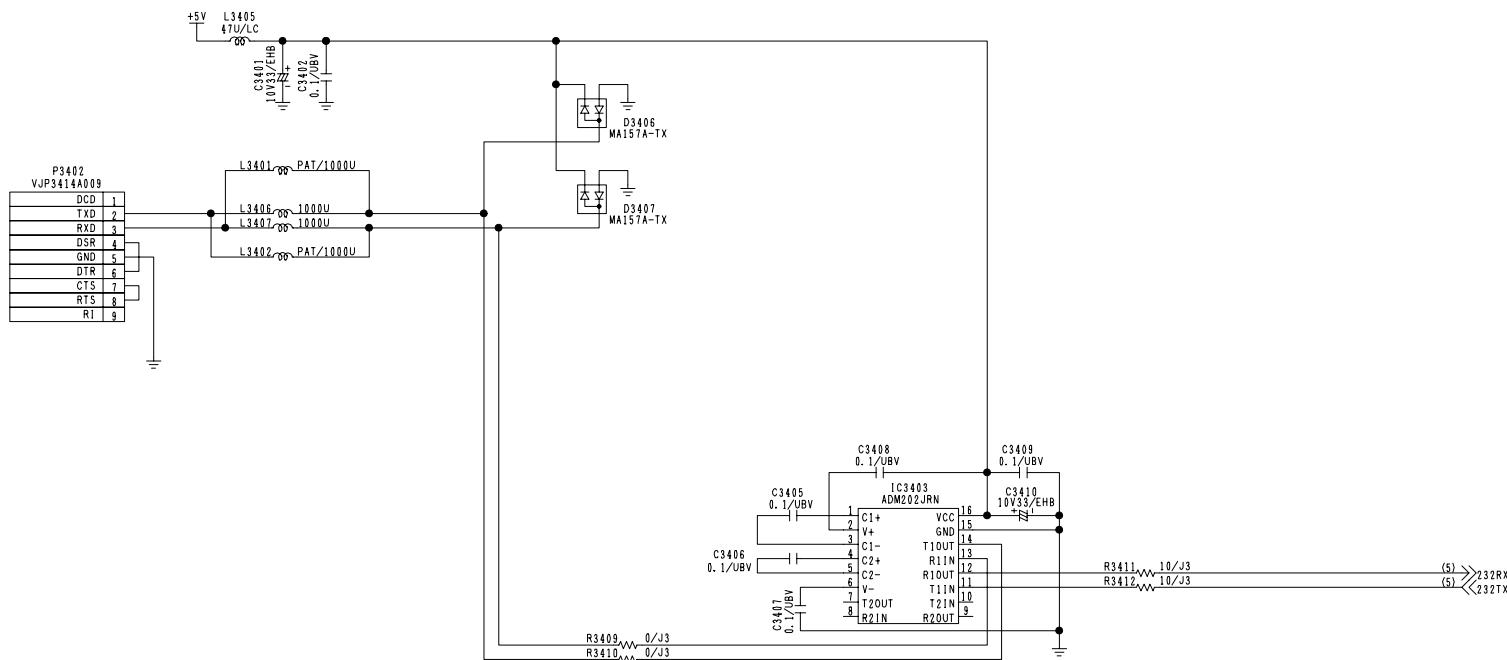
PB/B



COMPONENT NAME	SUB (PB IN)		03/05
CIRCUIT BOARD NO.	DRAWING NO.		
VEP13114A	KR30558		
		SCM012	

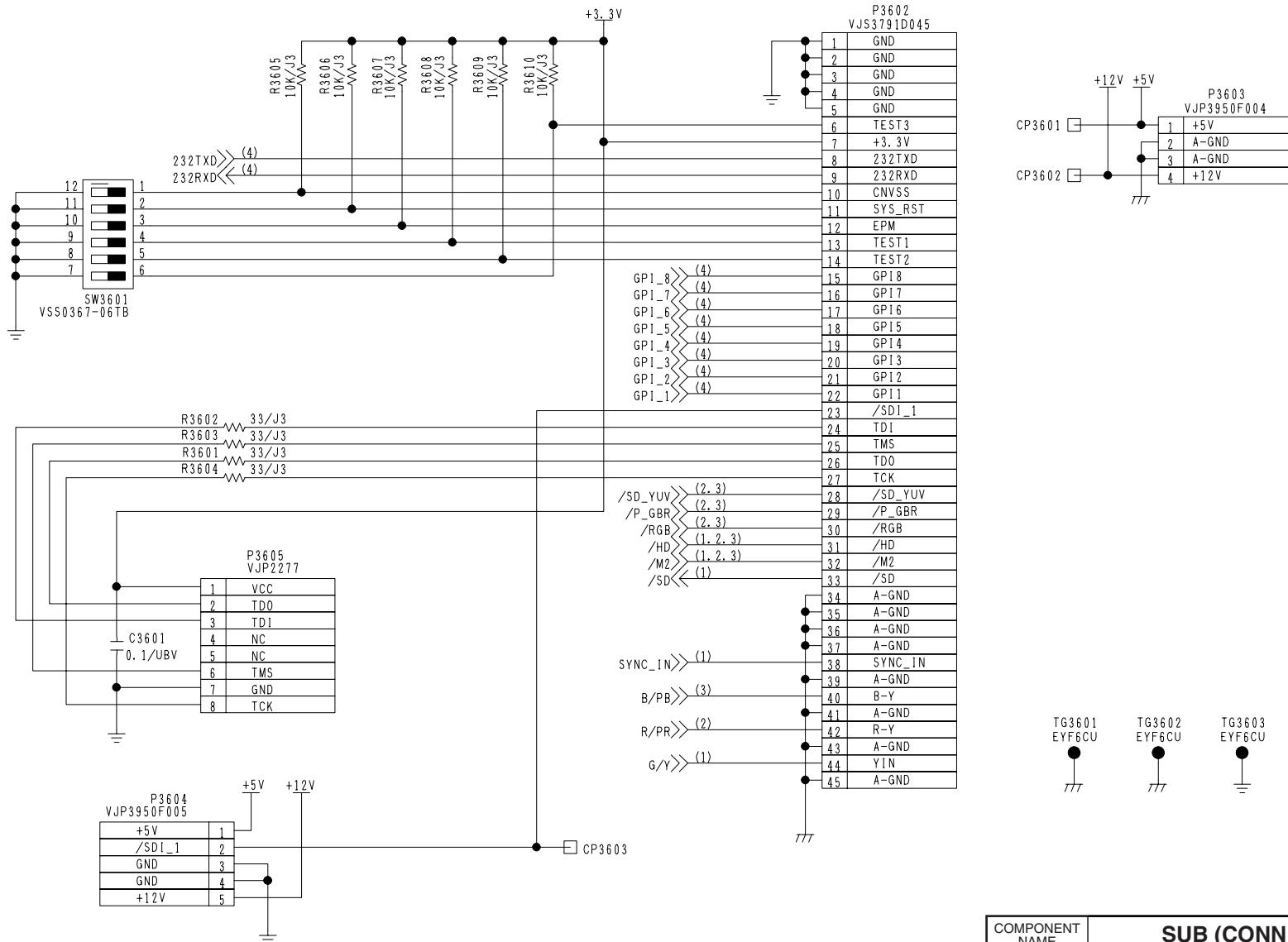
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15

A  
B  
C  
D  
E  
F  
G  
H  
I  
J



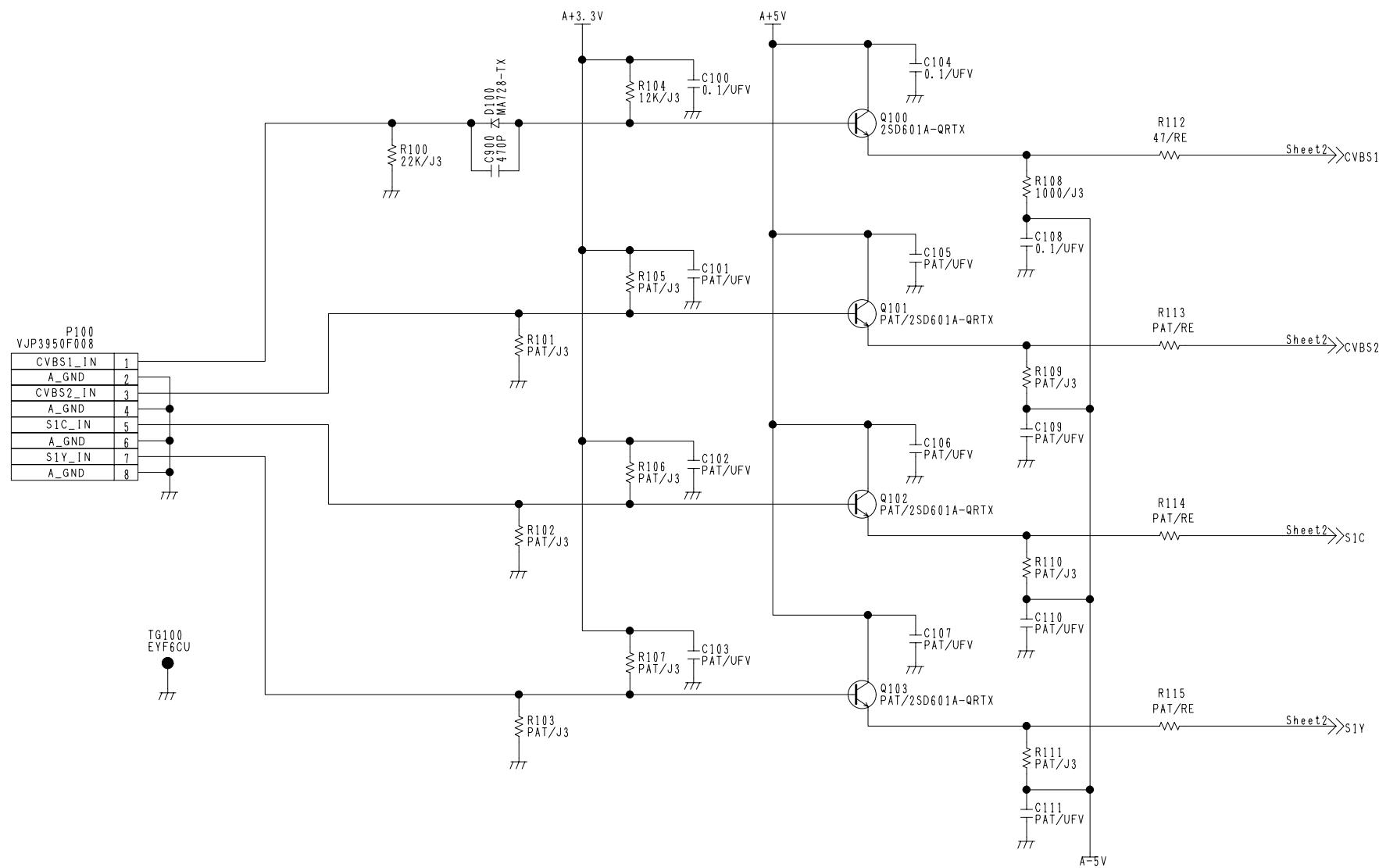
COMPONENT NAME	SUB (GPI IN)	04/05
CIRCUIT BOARD NO.		DRAWING NO.
VEP13114A	KR30558	SCM013

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15



1 2 3 4 5 6 7 8 9 10 11 12 13 14 15

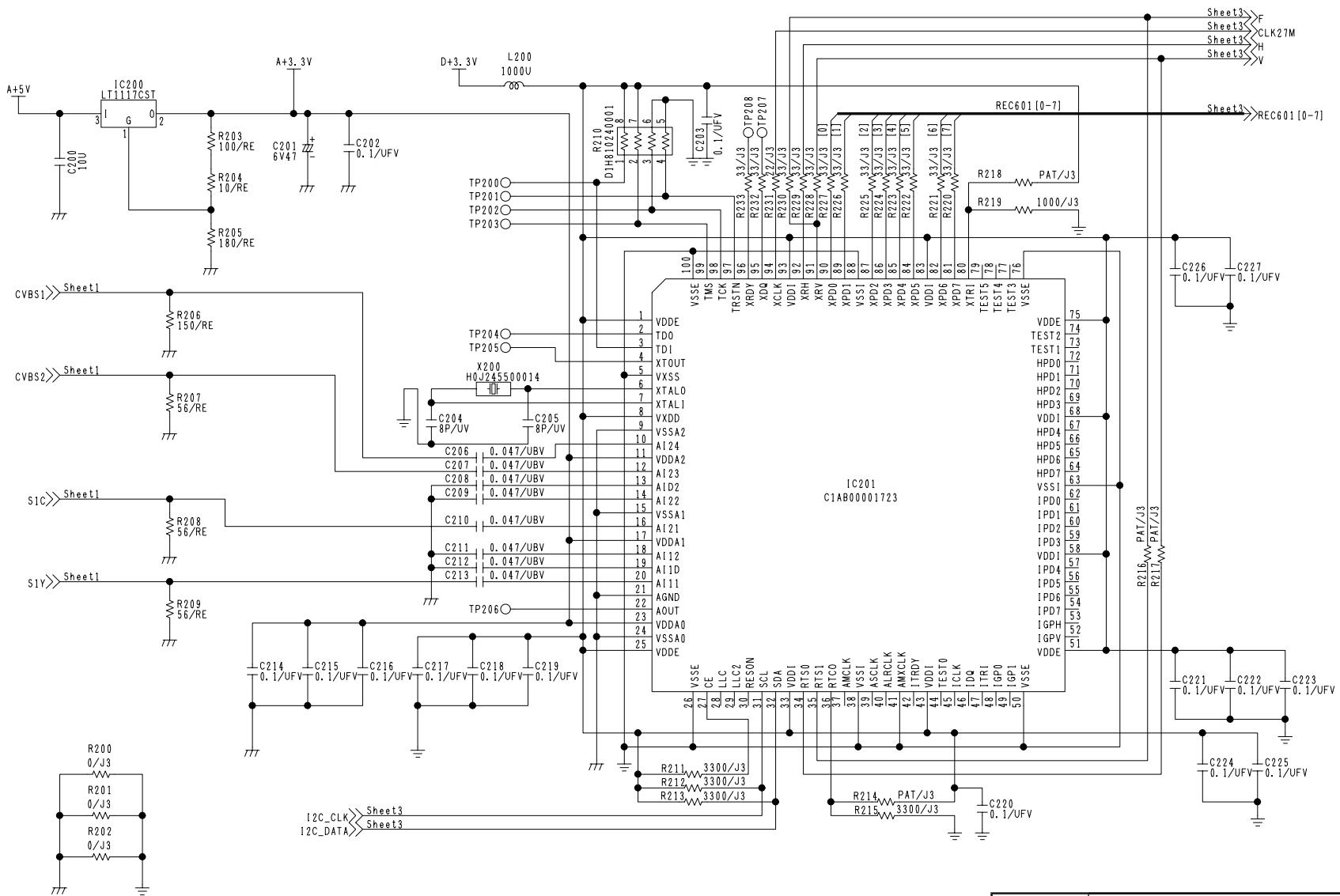
A  
B  
C  
D  
E  
F  
G  
H  
I  
J



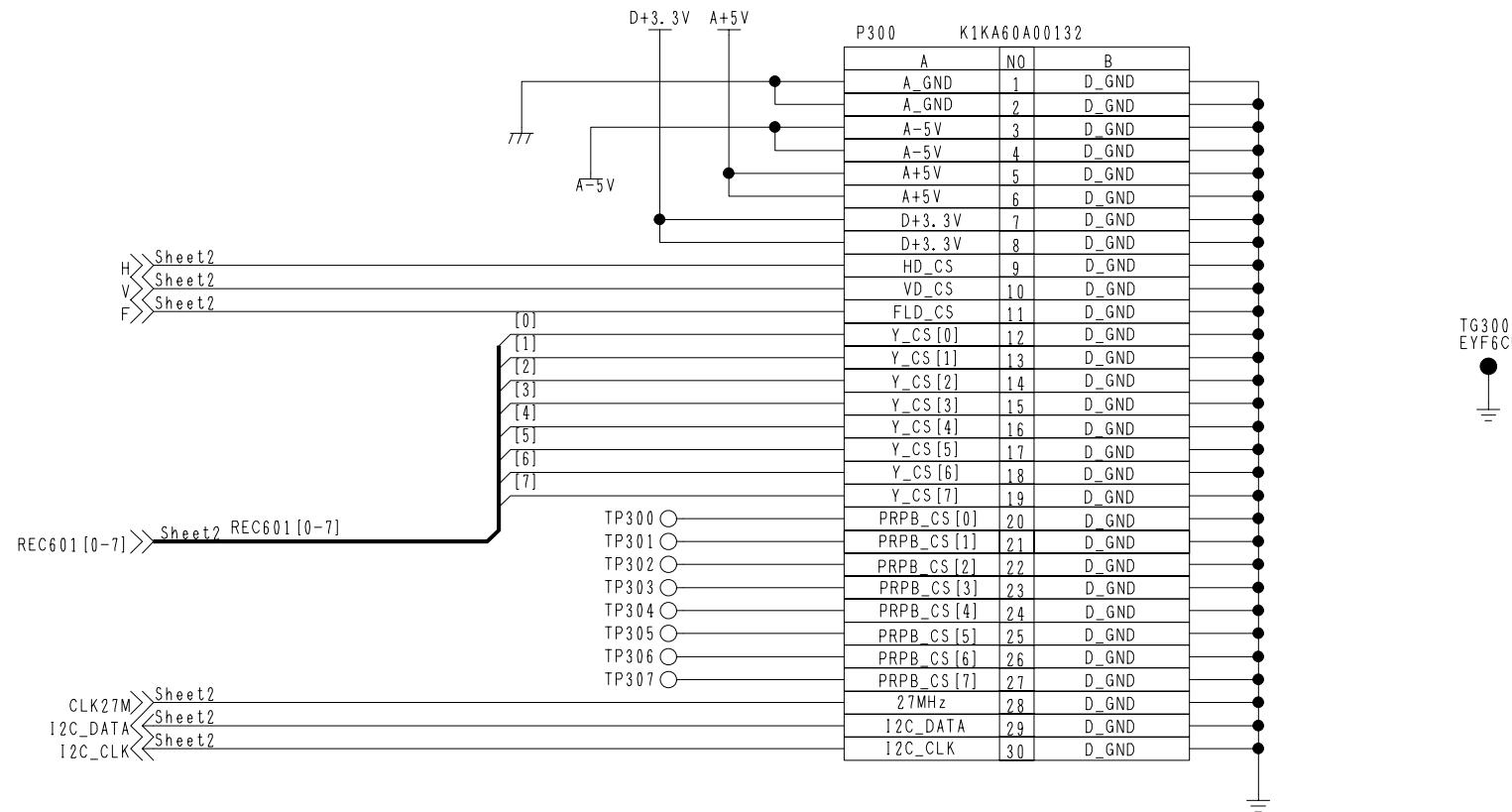
COMPONENT NAME	CVBS DEC	
CIRCUIT BOARD NO.	01/03	
VEP13115A		KR3A003
SCM015		

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15

A  
B  
C  
D  
E  
F  
G  
H  
I  
J



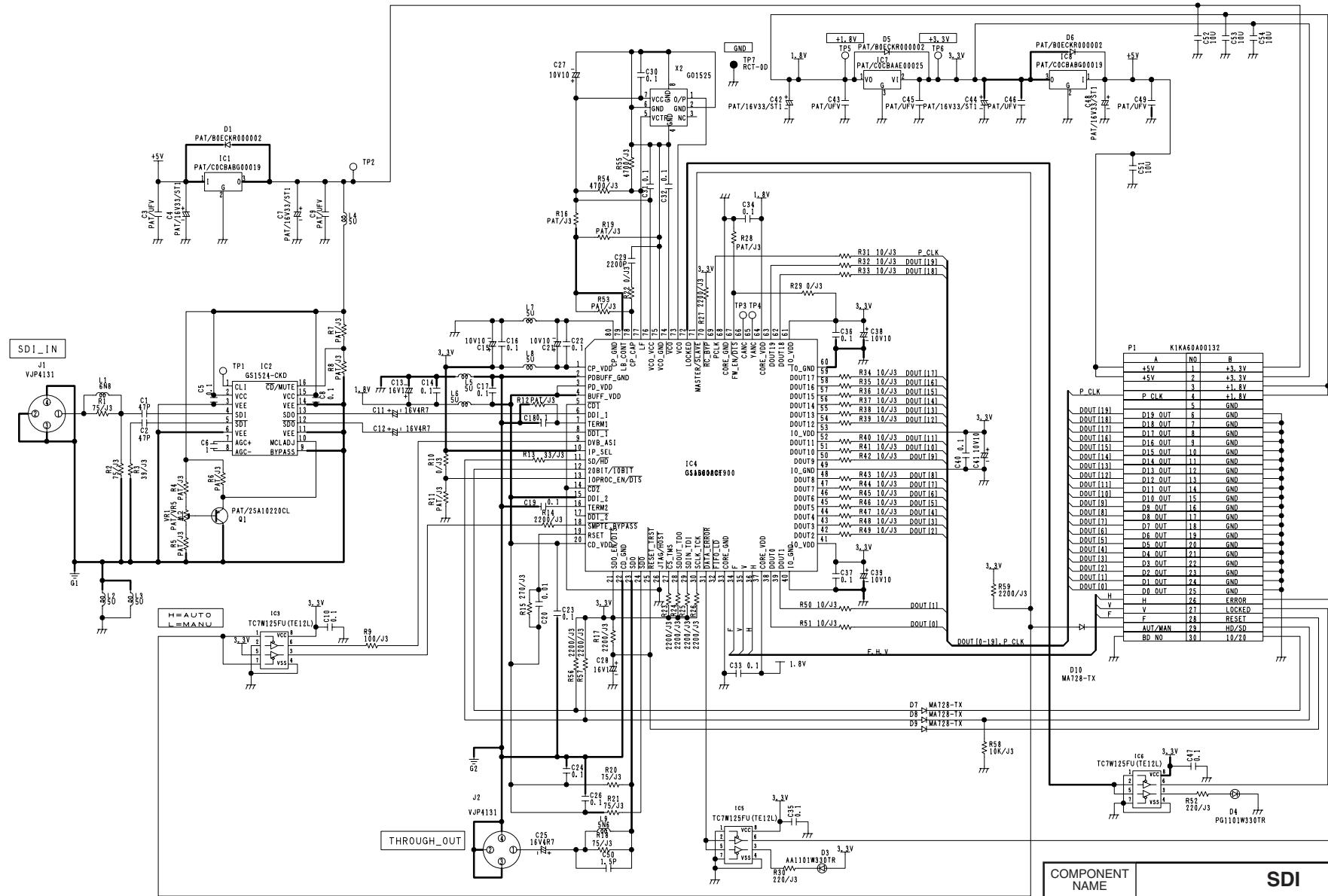
COMPONENT NAME	CVBS DEC	02/03
CIRCUIT BOARD NO.	DRAWING NO.	
VEP13115A		KR3A003
SCM016		
1	2	3
4	5	6
7	8	9
10	11	12
13	14	15



COMPONENT NAME	CVBS DEC	
03/03		
CIRCUIT BOARD NO.		DRAWING NO.
VEP13115A		KR3A003
SCM017		

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15

A  
B  
C  
D  
E  
F  
G  
H  
I  
J

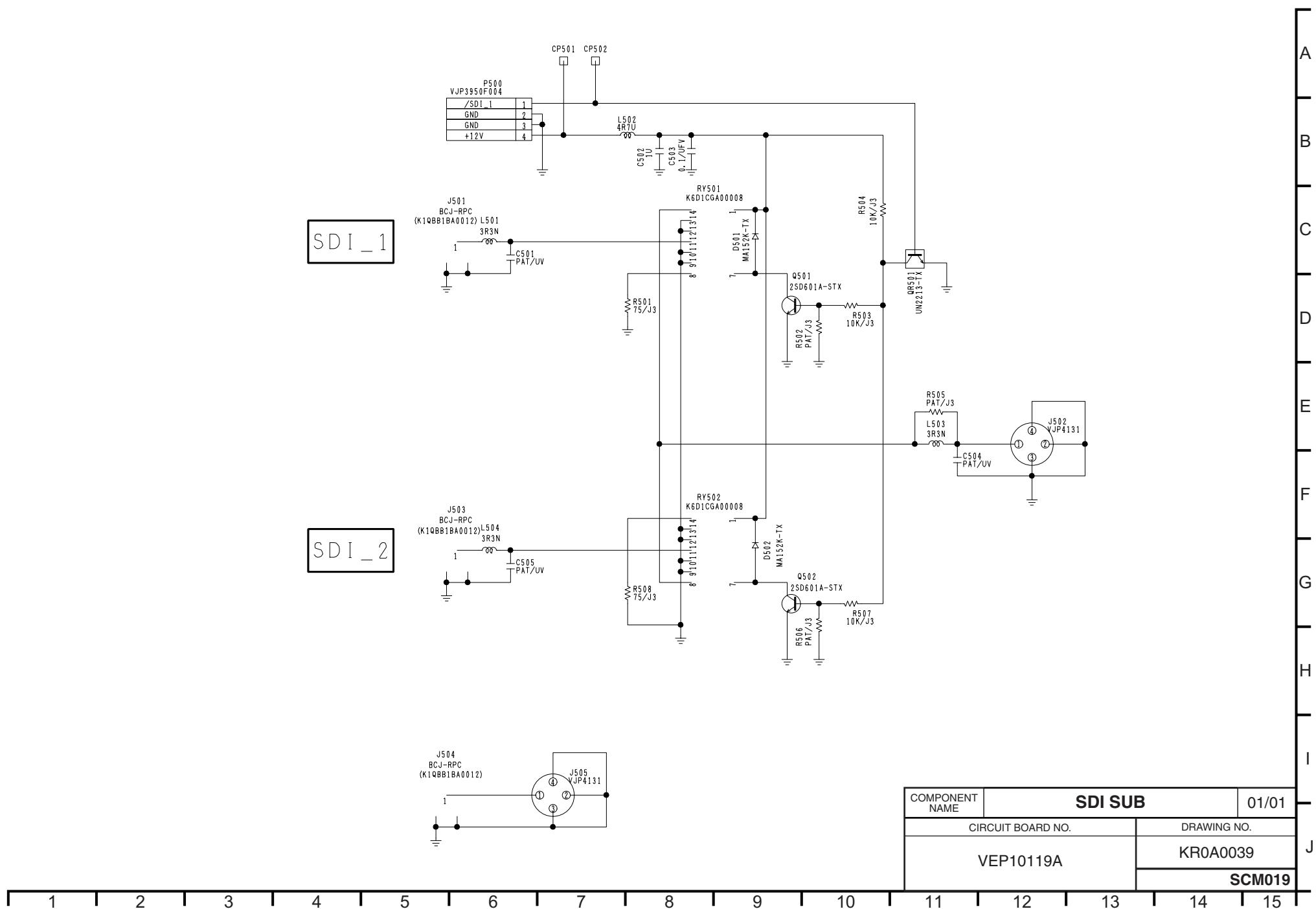


COMPONENT NAME	SDI	01/01
CIRCUIT BOARD NO.		DRAWING NO.
KR0A0040		

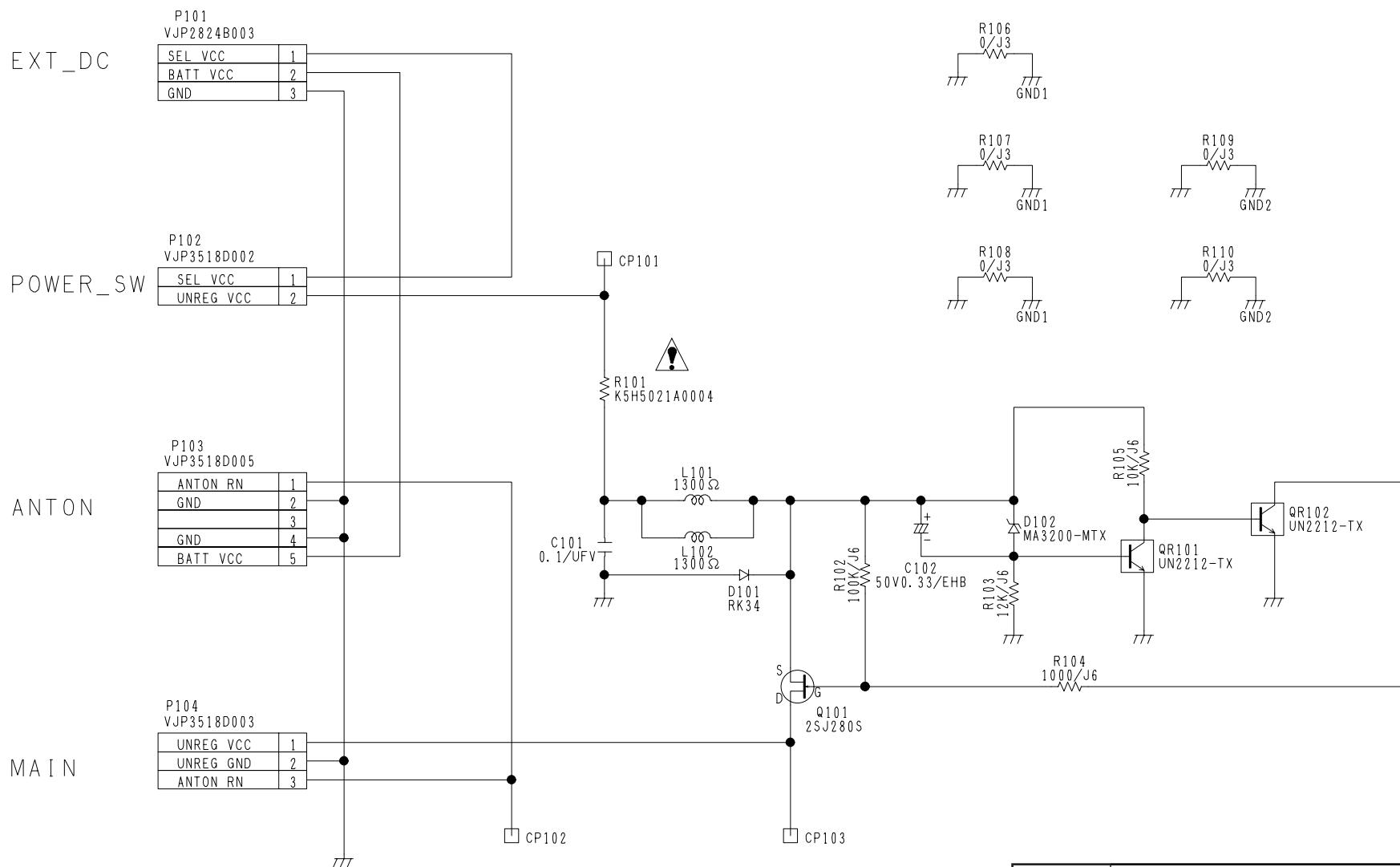
SCM018

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15

A  
B  
C  
D  
E  
F  
G  
H  
I  
J

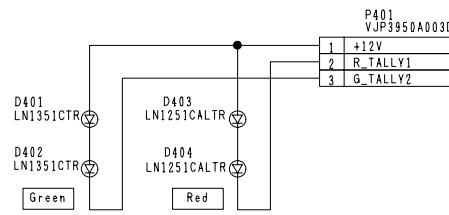


A  
B  
C  
D  
E  
F  
G  
H  
I  
J



COMPONENT NAME	POWER SUB		01/01
CIRCUIT BOARD NO.	DRAWING NO.		
VEP11110A	KR1G76		
	SCM020		

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15



COMPONENT NAME	TALLY	01/01
CIRCUIT BOARD NO.	DRAWING NO.	
VEP10117A	KR0T92	
	SCM021	

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15

A

B

C

D

E

F

G

H

I

J



A

B

C

D

E

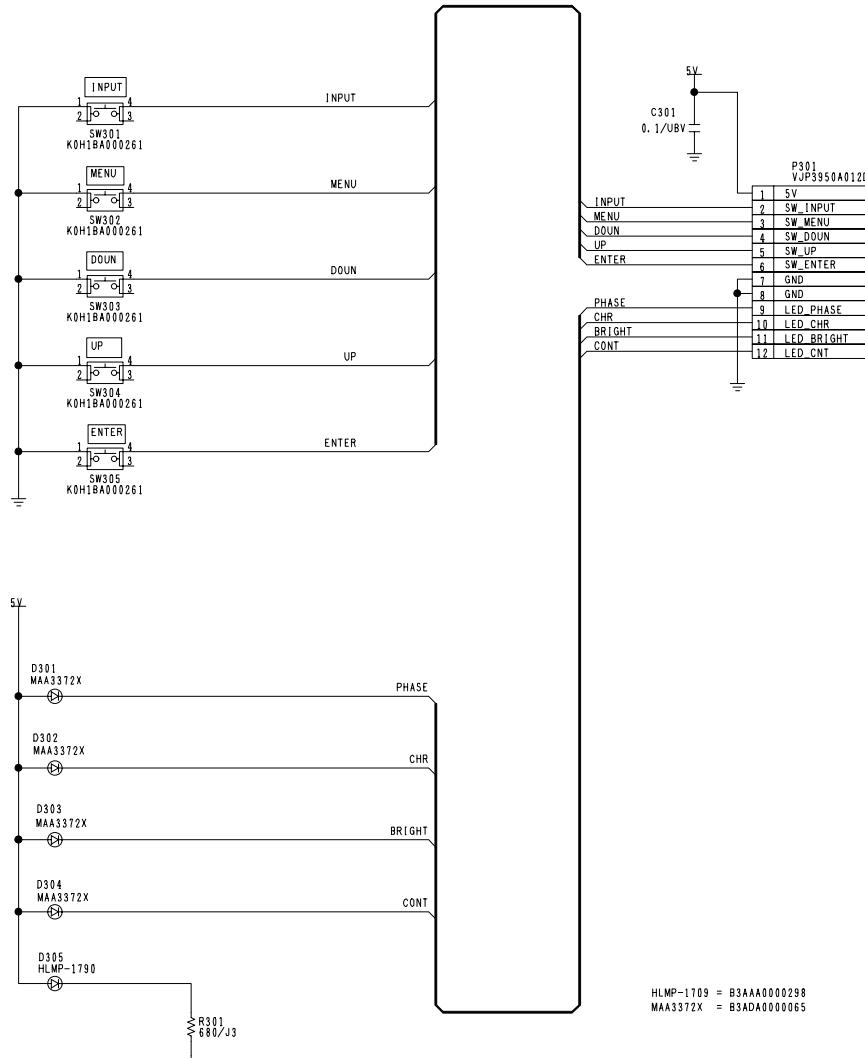
F

G

H

I

J



HLMP-1790 = B3AAA0000298  
 MAA3372X = B3ADA000065

COMPONENT NAME	SW	01/01
CIRCUIT BOARD NO.		DRAWING NO.
VEP10116A	KR0T91	SCM023

# SECTION 5

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## EXPLODED VIEWS & REPLACEMENT PARTS LISTS

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Note:

1. \*Be sure to make your orders of replacement parts according to this list.
2. Unless otherwise specified, all resistors are in OHMS, K=1,000 OHMS, all capacitors are in MICROFARADS ( $\mu$ F), P= $\mu\mu$ F.
3. The P.C. Board units marked with "■" shown below the main assembled parts.
4. The parts marked with  $\oplus$  on the exploded view show the electric parts.
5. **IMPORTANT SAFETY NOTICE**  
Components identified with the mark  $\Delta$  have the special characteristics for safety. When replacing any of these components, use only the same type.
6. The marking (RTL) indicates the retention time is limited for this item.  
After the discontinuation of this assembly in production, it will no longer be available.

## CONTENTS

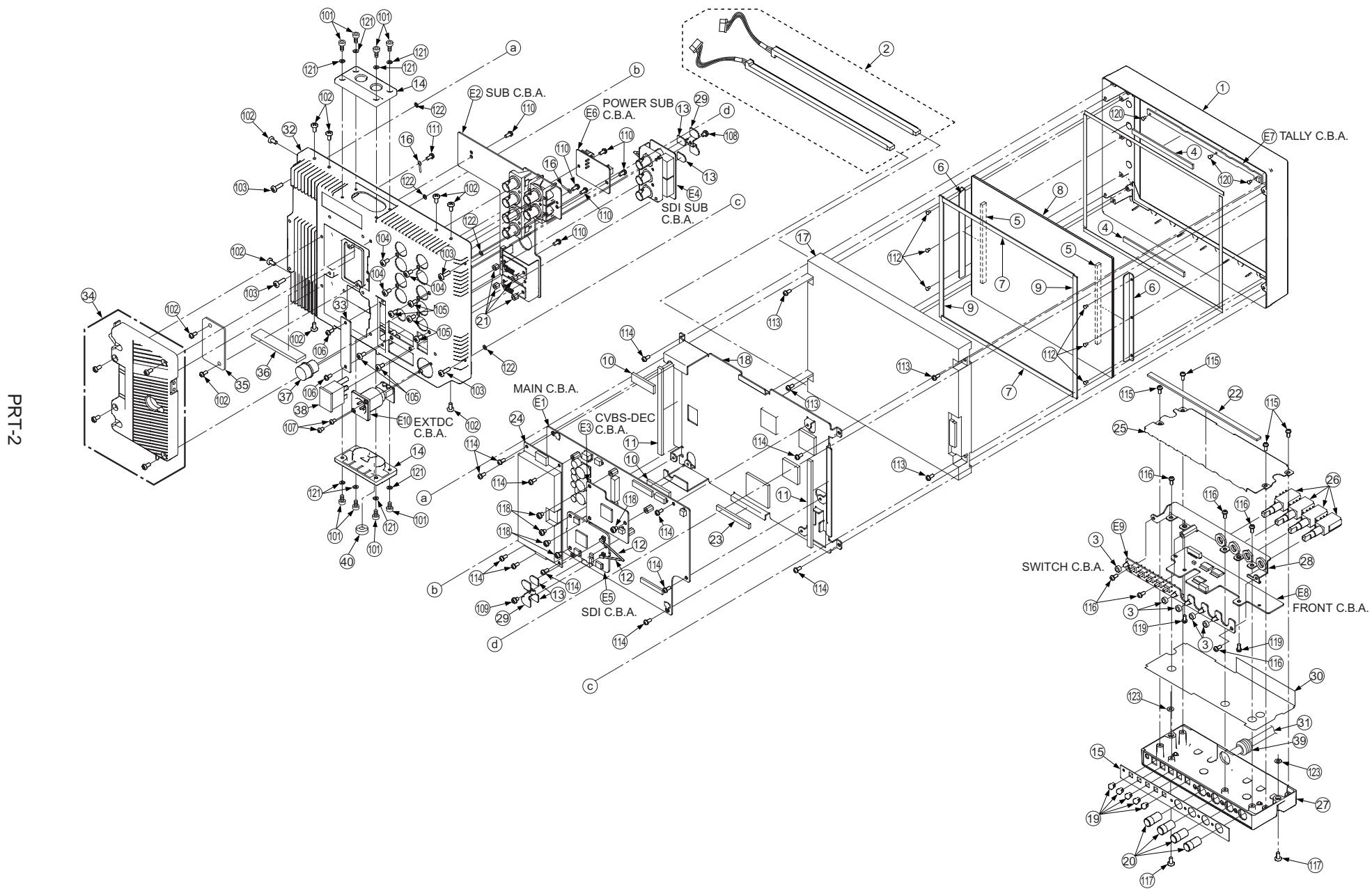
CASING PARTS ASSEMBLY .....	PRT-1
PACKING PARTS ASSEMBLY .....	PRT-3
CABLE LIST .....	PRT-4
ELECTRICAL REPLACEMENT PARTS LIST .....	PRT-5

Components identified with the mark **△** have the special characteristics for safety.  
When replacing any of these components, use only the same type.

# CASING PARTS ASSEMBLY

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks	Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
1	VYP8852	FRONT CASE ASS'Y	1						
2	84LHS03	BACKLIGHT	1						
3	VGF1000	LED COVER	5						
4	VMT1543	GASKET B	2						
5	VMT1542	GASKET A	2						
6	VMP7859	FRONT ANGLE	2						
7	VMT1520	PROTECT PANEL SPONGE (B)	2						
8	VQQ7597	PROTECT PANEL	1						
9	VMT1509	PROTECT PANEL SPONGE (A)	2						
10	VMG1599	HEATING SHEET (F)	2						
11	VMG1596	HEATING SHEET (C)	2						
12	VEEOE13200	SDI COAXIAL CABLE	2						
13	VMT1435	CONNECTOR CUSHION	2						
14	VQQ7598	TRIPOD FIX BLOCK	2						
15	VGH4726	SW BOX NAME PLATE	1						
16	SHR330	CLAMPER	2						
17	LSBZD2Q00001	LCD PANEL	1						
18	VMP7842	MAIN P.C.B BASE	1						
19	VGU7459	TACT SW KNOB	5						
20	VGU9566	ROTARY KNOB	4						
21	KIYE25000007	SCREW	4						
22	VMT1510	SW BOX COVER CUSHION	1						
23	VMG1598	HEATING SHEET (E)	1						
24	NODE2GD00001	INVERTER ASS'Y	1						
25	VGF0992	SW BOX COVER	1						
26	VEP10121A	VR FLEX. P.C.BORD	4						
27	VGM2069	SW BOX	1						
28	VMP7846	VR FIX. ANGLE	1						
29	VMP7845	SDI HOLD ANGLE	1						
30	VMZ3400	INSULATION SHEET (BOTTOM)	1						
31	VWJ1703	OPERATION SECTION CABLE	1						
△ 32	VGM2068	BACK CASE	1						
33	VGF0991	MAINTENANCE COVER	1						
34	VJF1347	BATTERY HOLDER	1						
35	VGF0709	BACK CASE COVER	1						
36	VGF0997	BATTERY CABLE HOLDER	1						
37	VEE0Y95	CABLE	1	MAIN OPERATION TERMINAL					
38	VEE0Y89	POWER SW CABLE	1						
39	VMX0998	CORD BUSH	1						
40	VHN0361	SCREW SPACER	1						
101	XVE26A6FP	SCREW	8						
102	XSB3+6FZ	SCREW	10						
103	XSB3+10FZ	SCREW	4						
104	XTB3+10GFZ	SCREW	3						
105	XTB3+6FZ	SCREW	6						
106	XSB26+4FZ	SCREW	2						
107	XSN26+6FC	SCREW	2						
108, 09	XYN3+K6	SCREW	2						
110	XYN26+K5	SCREW	6						
111	XYN3+K4	SCREW	1						
112	XQN2+A3	SCREW	6						
113	XSB26+8FZ	SCREW	4						
114	XYN26+K5	SCREW	12						
115	XSB26+6FZ	SCREW	4						
116	XYN26+K5	SCREW	6						
117	XSB3+8FZ	SCREW	2						
118	XYN3+J5	SCREW	5						
119	XSB26+5	SCREW	2						
120	XQN2+A3	SCREW	3						
121	XWA26BFZ	WASHER	8						
122, 23	VMX3348	WASHER	3						
E1	VEP16104A	MAIN P.C.BORD	1						
E2	VEP13114A	SUB P.C.BORD	1						
E3	VEP13115A	CVBS-DEC P.C.BORD	1						
E4	VEP10119A	SDI SUB P.C.BORD	1						
E5	VEP10120A	SDI P.C.BORD	1						
E6	VEP11110A	POWER SUB P.C.BORD	1						
E7	VEP10117A	TALLY P.C.BORD	1						
E8	VEP10115A	FRONT P.C.BORD	1						
E9	VEP10116A	SW P.C.BORD	1						

## CASING PARTS ASSEMBLY



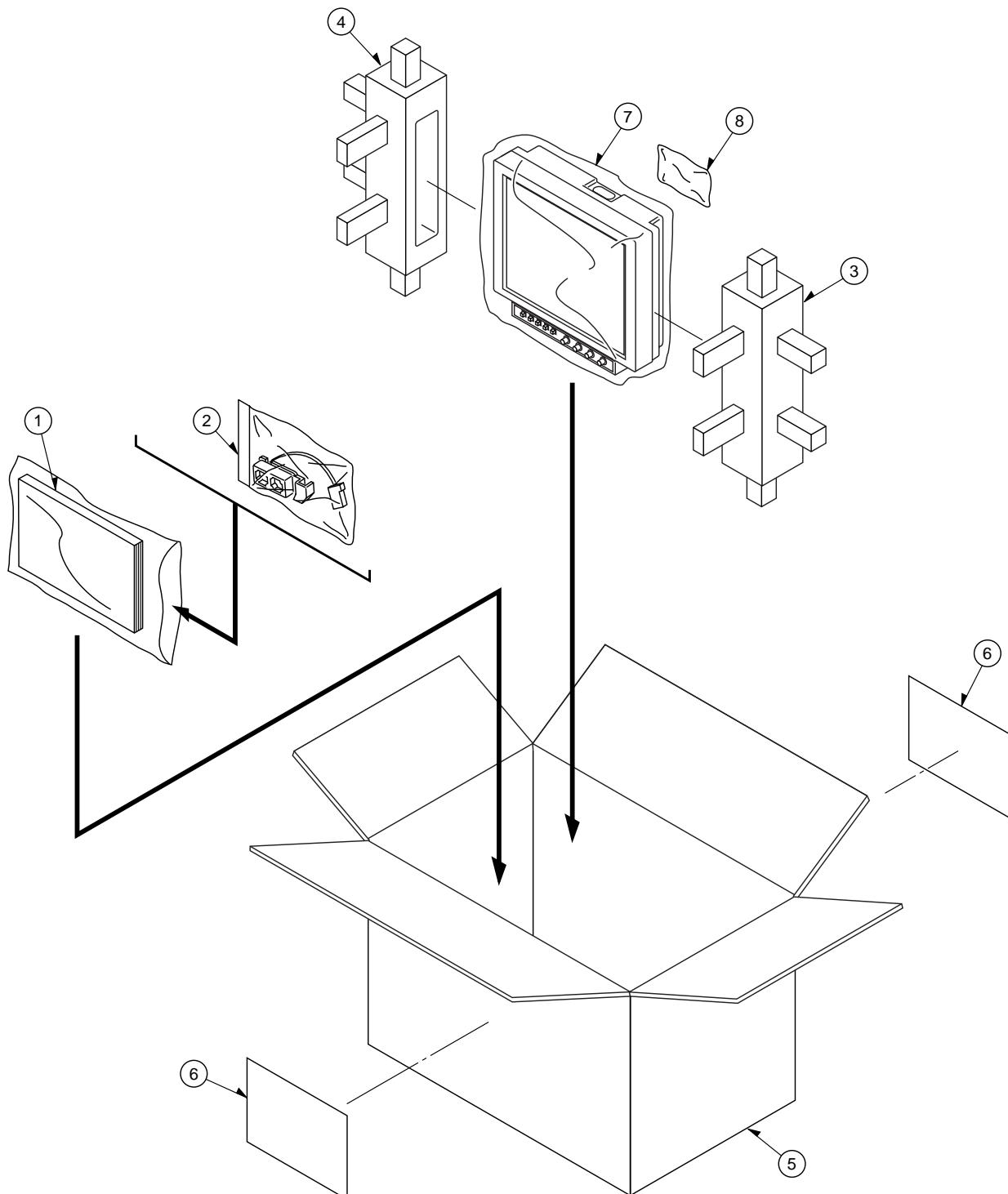
Components identified with the mark  $\Delta$  have the special characteristics for safety.  
When replacing any of these components, use only the same type.

## PACKING PARTS ASSEMBLY

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
$\Delta$ 1	VQT0F30	OPERATING INSTRUCTIONS	1	
2	VEJ1672	BATTERY ADAPTOR ASS'Y	1	
3	VPN6082	CUSHION (L)	1	
4	VPN6083	CUSHION (R)	1	
5	VPG0V15	PACKING CASE	1	
6	VQL9822	PACKING LABEL	2	
7	VPF0672	DECK PROTECT BAG	1	
8	VPN2745	PROTECT MAT	1	

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks

## PACKING PARTS ASSEMBLY



## CABLE LIST

No.	Parts No.	CONNECTION BETWEEN			
		P.C.B. Name	Connector No.	P.C.B. Name	Connector No.
1	VEE0E13200	SDI	J1, J2	SDI SUB	J505, J502
2	VEE0Y85	MAIN	P6101	TQLL Y	P401
3	VEE0Y86	SDI	P500	SUB	P3604
4	VEE0Y87	MAIN	P6120	SUB	P3603
5	VEE0Y88	MAIN	P6800	POWER SUB	P104
6	VEE0Y89	POWER SUB	P102	POWER SW	---
7	VEE0Y90	POWER SUB	P101	DC IN	---
8	VEE0Y91	POWER SUB	P103	ANTON BATT	---
9	VEE0Y92	MAIN	P6801	INVERTER	---
10	VEE0Y93	SUB	P3101	CVBS DEC	P100
11	VEE0Y94	MAIN	P6700	LCD PANEL	---
12	VEE0Y95	MAIN	P6103	FRONT	---
13	VEE0Z22	FRONT	P202	SW	P301
14	VEK0G61	MAIN	P6106	SUB	P3602
15	VWJ1703	FRONT	P201	CONTROL	---

NOTE : The drawing of the cable refer to the OVERALL SCHEMATIC DIAGRAM (SCM-1)

# ELECTRICAL REPLACEMENT PARTS LIST

Ref.No.	Part No.	Part Name & Description	Pcs	Remarks
■ E1	VEP16104A	MAIN P.C.BORD	1	(RTL)
■ E2	VEP13114A	SUB P.C.BORD	1	(RTL)
■ E3	VEP13115A	CVBS DEC P.C.BORD	1	(RTL)
■ E4	VEP10120A	SDI P.C.BORD	1	(RTL)
■ E5	VEP10119A	SDI SUB P.C.BORD	1	(RTL)
■ E6	VEP11110A	POWER SUB P.C.BORD	1	(RTL)
■ E7	VEP10117A	TALLY P.C.BORD	1	(RTL)
■ E8	VEP10115A	FRONT P.C.BORD	1	(RTL)
■ E9	VEP10116A	SW P.C.BORD	1	(RTL)
■ E1	VEP16104A	MAIN P.C.BORD	1	(RTL)
C6100	ECJ1VF1E104Z	C.CAPACITOR CH 25V 0.1U	1	
C6101	EEVHB1C470P	E.CAPACITOR 16V 47U	1	
C6102	ECJ1VF1E104Z	C.CAPACITOR CH 25V 0.1U	1	
C6103	ECST1AY685R	T.CAPACITOR CH 10V 6.8U	1	
C6104	EEVHB1E330P	E.CAPACITOR 25V 33U	1	
C6105-10	ECJ1VF1E104Z	C.CAPACITOR CH 25V 0.1U	6	
C6112	ECJ1VF1E104Z	P.CAPACITOR 25V 0.1U	1	
C6200	ECST1AY106R	T.CAPACITOR CH 10V 10U	1	
C6201	F1H1H104A783	C.CAPACITOR CH 50V 0.1U	1	
C6202,03	ECJ1VF1E104Z	C.CAPACITOR CH 25V 0.1U	2	
C6204	ECST1AY106R	T.CAPACITOR CH 10V 10U	1	
C6205	F1H1H104A783	C.CAPACITOR CH 50V 0.1U	1	
C6206	ECJ1VB1H103K	C.CAPACITOR CH 50V 0.01U	1	
C6207	ECST1VX105	T.CAPACITOR CH 35V 1U	1	
C6208	ECJ1VF1E104Z	C.CAPACITOR CH 25V 0.1U	1	
C6209,10	ECJ1VCH1220J	C.CAPACITOR CH 50V 22P	2	
C6211	F1H1H104A783	C.CAPACITOR CH 50V 0.1U	1	
C6212-15	ECJ1VF1E104Z	C.CAPACITOR CH 25V 0.1U	4	
C6216	ECUX1C106KBP	C.CAPACITOR CH 16V 10U	1	
C6301	F1H1H104A783	C.CAPACITOR CH 50V 0.1U	1	
C6302	EEVHB1C470P	E.CAPACITOR 16V 47U	1	
C6303,04	F1H1H104A783	C.CAPACITOR CH 50V 0.1U	2	
C6305	EEVHB1C470P	E.CAPACITOR 16V 47U	1	
C6306-08	F1H1H104A783	C.CAPACITOR CH 50V 0.1U	3	
C6309	ECUX1C106VBP	C.CAPACITOR CH 16V 10U	1	
C6310	F1H1H104A783	C.CAPACITOR CH 50V 0.1U	1	
C6311	EEVHB1C470P	E.CAPACITOR 16V 47U	1	
C6312	F1H1H104A783	C.CAPACITOR CH 50V 0.1U	1	
C6313	EEVHB1C470P	E.CAPACITOR 16V 47U	1	
C6314	F1H1H104A783	C.CAPACITOR CH 50V 0.1U	1	
C6315	EEVHB1A330	E.CAPACITOR 10V 33U	1	
C6316	ECUX1C106VBP	C.CAPACITOR CH 16V 10U	1	
C6317,18	F1H1H104A783	C.CAPACITOR CH 50V 0.1U	2	
C6319	ECUX1A105ZVF	C.CAPACITOR CH 10V 1U	1	
C6320-28	F1H1H104A783	C.CAPACITOR CH 50V 0.1U	9	
C6329	ECUX1C106VBP	C.CAPACITOR CH 50V 100P	1	
C6330	F1H1H104A783	C.CAPACITOR CH 50V 0.1U	1	

Ref.No.	Part No.	Part Name & Description	Pcs	Remarks
C6331	ECUX1C274KBN	C.CAPACITOR CH 16V 0.27U	1	
C6332	ECUX1H331JCV	C.CAPACITOR CH 50V 330P	1	
C6333	ECUX1C334KBN	C.CAPACITOR CH 16V 0.33U	1	
C6334,35	F1H1H104A783	C.CAPACITOR CH 50V 0.1U	2	
C6336	ECUX1H104JCV	C.CAPACITOR CH 50V 100P	1	
C6337	F1H1H104A783	C.CAPACITOR CH 50V 0.1U	1	
C6338	ECUX1A105ZVF	C.CAPACITOR CH 10V 1U	1	
C6339-45	F1H1H104A783	C.CAPACITOR CH 50V 0.1U	7	
C6346	ECUX1C106VBP	C.CAPACITOR CH 16V 10U	1	
C6347	ECUX1H271JCV	C.CAPACITOR CH 50V 270P	1	
C6348	ECJ1VB1H103K	C.CAPACITOR CH 50V 0.01U	1	
C6349,50	F1H1H104A783	C.CAPACITOR CH 50V 0.1U	2	
C6400	ECJ1VF1E104Z	C.CAPACITOR CH 25V 0.1U	1	
C6401	ECUX1C106VBP	C.CAPACITOR CH 16V 10U	1	
C6402	F1H1H104A783	C.CAPACITOR CH 50V 0.1U	1	
C6403	EEVHB1A330	E.CAPACITOR 10V 33U	1	
C6404	ECUX1C106VBP	C.CAPACITOR CH 16V 10U	1	
C6405	ECST1AY106Z	T.CAPACITOR CH 10V 10U	1	
C6406	ECJ1VF1E104Z	C.CAPACITOR CH 25V 0.1U	1	
C6407	ECST1AY106Z	T.CAPACITOR CH 10V 10U	1	
C6408	ECJ1VF1E104Z	C.CAPACITOR CH 25V 0.1U	1	
C6409	ECST1AY106Z	T.CAPACITOR CH 10V 10U	1	
C6410	ECJ1VF1E104Z	C.CAPACITOR CH 25V 0.1U	1	
C6411	ECST1AY106Z	T.CAPACITOR CH 10V 10U	1	
C6412	ECJ1VF1E104Z	C.CAPACITOR CH 25V 0.1U	1	
C6413	ECST1AY106Z	T.CAPACITOR CH 10V 10U	1	
C6414	ECJ1VF1E104Z	C.CAPACITOR CH 25V 0.1U	1	
C6415	ECST1AY106Z	T.CAPACITOR CH 10V 10U	1	
C6416-20	ECJ1VF1E104Z	C.CAPACITOR CH 25V 0.1U	5	
C6421	ECST1AY106Z	T.CAPACITOR CH 10V 10U	1	
C6422	ECJ1VF1E104Z	C.CAPACITOR CH 25V 0.1U	1	
C6423	ECST1AY106Z	T.CAPACITOR CH 10V 10U	1	
C6424-28	ECJ1VF1E104Z	C.CAPACITOR CH 25V 0.1U	5	
C6429	ECST1AY106Z	T.CAPACITOR CH 10V 10U	1	
C6430	ECJ1VF1E104Z	C.CAPACITOR CH 25V 0.1U	1	
C6431	ECST1AY106Z	T.CAPACITOR CH 10V 10U	1	
C6432-40	ECJ1VF1E104Z	C.CAPACITOR CH 25V 0.1U	9	
C6500-07	ECJ1VF1E104Z	C.CAPACITOR CH 25V 0.1U	8	
C6508	ECST1CX106Z	T.CAPACITOR CH 16V 10U	1	
C6509-14	ECJ1VF1E104Z	C.CAPACITOR CH 25V 0.1U	6	
C6515	ECST1CX106Z	T.CAPACITOR CH 16V 10U	1	
C6516-21	ECJ1VF1E104Z	C.CAPACITOR CH 25V 0.1U	6	
C6522	ECUX1C106VBP	C.CAPACITOR CH 16V 10U	1	
C6523	ECJ1VF1E104Z	C.CAPACITOR CH 25V 0.1U	1	
C6524	EEVHB1A330	E.CAPACITOR 10V 33U	1	
C6525	ECUX1C106VBP	C.CAPACITOR CH 16V 10U	1	
C6526-28	ECJ1VF1E104Z	C.CAPACITOR CH 25V 0.1U	3	
C6529	ECUM1C105ZFN	C.CAPACITOR CH 16V 1U	1	F1J1C105A083
C6530	ECUX1H563KBN	C.CAPACITOR CH 50V 0.056U	1	
C6531-37	ECJ1VF1E104Z	C.CAPACITOR CH 25V 0.1U	7	
C6600-03	ECJ1VF1E104Z	C.CAPACITOR CH 25V 0.1U	4	
C6604	ECST1AY106Z	T.CAPACITOR CH 10V 10U	1	
C6605	ECJ1VF1E104Z	C.CAPACITOR CH 25V 0.1U	1	
C6606	ECST1AY106Z	T.CAPACITOR CH 10V 10U	1	
C6607	ECJ1VF1E104Z	C.CAPACITOR CH 25V 0.1U	1	
C6608	ECST1AY106Z	T.CAPACITOR CH 10V 10U	1	
C6609	ECJ1VF1E104Z	C.CAPACITOR CH 25V 0.1U	1	
C6610	ECST1AY106Z	T.CAPACITOR CH 10V 10U	1	
C6611	ECJ1VF1E104Z	C.CAPACITOR CH 25V 0.1U	1	
C6612	ECST1AY106Z	T.CAPACITOR CH 10V 10U	1	
C6613	ECJ1VF1E104Z	C.CAPACITOR CH 25V 0.1U	1	
C6614	ECST1AY106Z	T.CAPACITOR CH 10V 10U	1	
C6615	ECJ1VF1E104Z	C.CAPACITOR CH 25V 0.1U	1	
C6616	ECST1AY106Z	T.CAPACITOR CH 10V 10U	1	
C6617	ECJ1VF1E104Z	C.CAPACITOR CH 25V 0.1U	1	
C6618	ECST1AY106Z	T.CAPACITOR CH 10V 10U	1	
C6619	ECJ1VF1E104Z	C.CAPACITOR CH 25V 0.1U	1	
C6620	ECST1AY106Z	T.CAPACITOR CH 10V 10U	1	
C6621-25	ECJ1VF1E104Z	C.CAPACITOR CH 25V 0.1U	5	
C6626	ECST1AY106Z	T.CAPACITOR CH 10V 10U	1	
C6627	ECJ1VF1E104Z	C.CAPACITOR CH 25V 0.1U	1	
C6628	ECST1AY106Z	T.CAPACITOR CH 10V 10U	1	
C6629-33	ECJ1VF1E104Z	C.CAPACITOR CH 25V 0.1U	5	
C6634	ECUX1C106VBP	C.CAPACITOR CH 16V 10U	1	
C6635	EEVHB1A330	E.CAPACITOR 10V 33U	1	

Ref.No.	Part No.	Part Name & Description	Pcs	Remarks
C6636	FL1H1104A783	C.CAPACITOR CH 50V 0.1U	1	
C6637	ECUX1C106VBP	C.CAPACITOR CH 16V 10U	1	
C6700-05	ECJ1VF1E1042	C.CAPACITOR CH 25V 0.1U	6	
C6706	EEVHB04J70	E.CAPACITOR 6.3V 47U	1	
C6707	ECJ1VF1E1042	C.CAPACITOR CH 25V 0.1U	1	
C6708	EEVHB0J470	E.CAPACITOR 6.3V 47U	1	
C6709	ECJ1VF1E1042	C.CAPACITOR CH 25V 0.1U	1	
C6710	EEVHB0J470	E.CAPACITOR 6.3V 47U	1	
C6800-02	ECJ1VF1E1042	C.CAPACITOR CH 25V 0.1U	3	
C6803	ECUX1H102JCV	C.CAPACITOR CH 50V 1000P	1	
C6804	ECUX1H221JCV	C.CAPACITOR CH 50V 220P	1	
C6806	ECJ1VF1E1042	C.CAPACITOR CH 25V 0.1U	1	
C6807	ECST1CY475	T.CAPACITOR CH 16V 4.7U	1	
C6808	ECUX1C224ZFW	C.CAPACITOR CH 16V 0.22U	1	
C6809	VCEA1DSP470	E.CAPACITOR 20V 47U	1	
C6810,11	ECST0JD157Z	E.CAPACITOR CH6.3V 150U	2	
C6812,13	ECJ1VF1E1042	C.CAPACITOR CH 25V 0.1U	2	
C6814	ECST0JD157Z	E.CAPACITOR CH6.3V 150U	1	
C6815-17	ECJ1VF1E1042	C.CAPACITOR CH 25V 0.1U	3	
C6818	ECUX1H102JCV	C.CAPACITOR CH 50V 1000P	1	
C6819	ECUX1H221JCV	C.CAPACITOR CH 50V 220P	1	
C6821	ECJ1VF1E1042	C.CAPACITOR CH 25V 0.1U	1	
C6822	ECST1CY475	T.CAPACITOR CH 16V 4.7U	1	
C6823	ECUX1C224ZFW	C.CAPACITOR CH 16V 0.22U	1	
C6824	VCEA1DSP470	E.CAPACITOR 20V 47U	1	
C6825	ECUX1E105KBM	C.CAPACITOR CH 25V 1U	1	
C6826	VCEA1IASP101	E.CAPACITOR 10V 100U	1	
C6827	ECUX1E105KBM	C.CAPACITOR CH 25V 1U	1	
C6828	EEFCD1B220R	E.CAPACITOR 12.5V 22U	1	
C6829,30	ECST1CX106Z	T.CAPACITOR CH 16V 10U	2	
C6831-33	ECJ1VF1E1042	C.CAPACITOR CH 25V 0.1U	3	
C6834	ECUX1H102JCV	C.CAPACITOR CH 50V 1000P	1	
C6835	ECUX1H221JCV	C.CAPACITOR CH 50V 220P	1	
C6837	ECJ1VF1E1042	C.CAPACITOR CH 25V 0.1U	1	
C6838	ECST1CY475	T.CAPACITOR CH 16V 4.7U	1	
C6839	ECUX1C224ZFW	C.CAPACITOR CH 16V 0.22U	1	
C6840	VCEA1DSP470	E.CAPACITOR 20V 47U	1	
C6841	ECUX1E105KBM	C.CAPACITOR CH 25V 1U	1	
C6842	VCEA1IASP101	E.CAPACITOR 10V 100U	1	
C6843	ECUX1E105KBM	C.CAPACITOR CH 25V 1U	1	
C6844	EEFCD0J470R	E.CAPACITOR 6.3V 47U	1	
C6845,46	ECUX1E105KBM	C.CAPACITOR CH 25V 1U	2	
C6847	ECJ1VF1E1042	C.CAPACITOR CH 25V 0.1U	1	
C6848	EEVHB1V100	E.CAPACITOR 35V 10U	1	
C6849	ECUX1E105KBM	C.CAPACITOR CH 25V 1U	1	
C6850	ECST1VY105Z	T.CAPACITOR CH 35V 1U	1	
C6851	ECST1AY685Z	T.CAPACITOR CH 10V 6.8U	1	
C6852-55	ECJ1VF1E1042	C.CAPACITOR CH 25V 0.1U	4	
C6856	FL1H1104A783	C.CAPACITOR CH 50V 0.1U	1	
C6857	VCEA1DSP470	E.CAPACITOR 20V 47U	1	
C6858	ECJ1VB1H103K	C.CAPACITOR CH 50V 0.01U	1	
C6859	ECJ1VF1E1042	C.CAPACITOR CH 25V 0.1U	1	
C6860	F2D1C1010003	E.CAPACITOR 20V 22U	1	
C6861	EEUFC1C471L	E.CAPACITOR 16V 470U	1	
C6862	ECUX1E105KBM	C.CAPACITOR CH 25V 1U	1	
C6863,64	ECJ1VF1E1042	C.CAPACITOR CH 25V 0.1U	2	
C6867	ECUX1E105KBM	C.CAPACITOR CH 25V 1U	1	
D6100	MA3J14300L	DIODE	1	
D6200	LNI1351C	DIODE	1	
D6201	MA3J14300L	DIODE	1	
D6800	MA142WK	DIODE	1	
D6801	MA2Q73800L	DIODE	1	
D6802	MA142WK	DIODE	1	
D6803	MA2Q73800L	DIODE	1	
D6804	MA142WK	DIODE	1	
D6805	MA2Q73800L	DIODE	1	
D6806	MA142WK	DIODE	1	
D6807	MA3J14300L	DIODE	1	
D6808,09	MA142WK	DIODE	2	
D6810	SFPB-76V	DIODE	1	
D6811,12	MA2Q73800L	DIODE	2	
FL6100-02	FL1J1A105A013	C.CAPACITOR CH 10V 1U	3	
FL6300,01	FL1J1A105A013	C.CAPACITOR CH 10V 1U	2	

Ref.No.	Part No.	Part Name & Description	Pcs	Remarks
PL6800	FL1J1A105A013	C.CAPACITOR CH 10V 1U	1	
IC6100	TLCX04F	IC	1	
IC6101	COJBAZ000851	IC	1	
IC6102-04	COJBAF000315	IC	3	
IC6105	COJBA000014	IC	1	
IC6106	COJBA000099	IC	1	
IC6200	C2CBKJ000078	IC	1	
IC6201	C3BBHG000070	IC	1	
IC6202	M51957BFP	IC	1	COEBH000062
IC6203	C3EBJC000038	IC	1	
IC6204	COJBA000099	IC	1	
IC6205	COJBAE000087	IC	1	
IC6206	TC7W08FU	IC	1	
IC6300	COFBAD000068	IC	1	
IC6301	LT1117CST	IC	1	
IC6302	YWNJM2246M	IC	1	C1AB00000413
IC6304	GS4981-C	IC	1	
IC6305	TLCX00FT	IC	1	
IC6400	C1ZBZ0002372	IC	1	
IC6401	C3HBKZ000001	IC	1	
IC6402	TVHT541FT	IC	1	
IC6403	C1ZB20001555	IC	1	
IC6404	LT1117CST	IC	1	
IC6405	COJBA000146	IC	1	
IC6500	MN845041-A	IC	1	
IC6501	C3ABQJ000022	IC	1	
IC6502	LT1117CST	IC	1	
IC6503	TLC2933IPW	IC	1	COABFA000012
IC6600	C1ZBZ0002370	IC	1	
IC6601	C1AB00001896	IC	1	
IC6602,03	C1ZBZ0001555	IC	2	
IC6604	LT1117CST	IC	1	
IC6700	COJBCZ000485	IC	1	
IC6800	TC4W53FU	IC	1	
IC6801	C0DBCFB00001	IC	1	
IC6802	TC4W53FU	IC	1	
IC6803	C0DBCFB00001	IC	1	
IC6804	C0DBZZ000047	IC	1	
IC6805	TC4W53FU	IC	1	
IC6806	C0DBCFB00001	IC	1	
IC6807	C0DBZGH00001	IC	1	C0CBADC00010
IC6808	COJBAZ000525	IC	1	
IC6809	COJBA000099	IC	1	
IC6810-13	COBBBA000044	IC	4	
IC6814	LM4040CIX2.5	IC	1	C0DBZFA00003
IC6815	C0DBEZHZ00007	IC	1	
IC6816	COBBBA000044	IC	1	
IC6817	COABBA000075	IC	1	
IC6818	TC7W74FU	IC	1	
ID10	VVVS14112B	SOFTWARE	1	DOWNLOAD ONLY
ID6200	VVVS14111B	SOFTWARE	1	DOWNLOAD ONLY
L6100-05	JOJBC0000041	FILTER	6	
L6106-08	JOJKC0000009	FILTER	3	
L6200,01	JOJBC0000041	FILTER	2	
L6300,01	JOJBC0000041	FILTER	2	
L6302	VLQ0319K470	COIL	47UH	1 G1C470K00013
L6400	JOJBC0000041	FILTER	1	
L6401,02	JOJKC0000009	FILTER	2	
L6403	JOJBC0000041	FILTER	1	
L6500,01	JOJKC0000009	FILTER	2	
L6600,01	JOJKC0000009	FILTER	2	
L6602	JOJBC0000041	FILTER	1	
L6700-03	JOJBC0000041	FILTER	4	
L6800,01	JOJKC0000009	FILTER	2	
L6802	VLQ0859M330	COIL	33UH	1
L6803	VLQ0916N5R3	COIL	5.3UH	1
L6804	JOJKC0000009	FILTER	1	
L6805	VLQ0859M150	COIL	15UH	1
L6806	VLQ0916N5R3	COIL	5.3UH	1
L6807	VLQ0859M150	COIL	15UH	1
L6808	VLQ0916N5R3	COIL	5.3UH	1
L6809	JOJKC0000009	FILTER	1	



Ref.No.	Part No.	Part Name & Description	Pcs	Remarks
R6629	ERJ6RED220	M.RESISTOR CH 1/10W 22	1	
R6630	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	
R6631,32	ERJ3GEY102	M.RESISTOR CH 1/16W 1K	2	
R6700-05	D1H833040002	COMBI.R-R 33	6	
R6706	ERJ3GEYJ330	M.RESISTOR CH 1/16W 33	1	
R6707	D1H833040002	COMBI.R-R 33	1	
R6708	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	
R6709	ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	DOGB103JA002
R6710-19	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	10	
R6722	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	
R6723	ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	DOGB103JA002
R6800	ERJ3RBD103	M.RESISTOR CH 1/16W 10K	1	
R6802	ERJ3RBD271	M.RESISTOR CH 1/16W 270	1	
R6803	ERJ3RBD472	M.RESISTOR CH 1/16W 4.7K	1	
R6804,05	ERJ3RBD512	M.RESISTOR CH 1/16W 5.1K	2	
R6806,07	ERJ3RED100	M.RESISTOR CH 1/16W 10	2	
R6808	ERJ6GEY0R00	M.RESISTOR CH 1/10W 0	1	DOYDR0000005
R6809	ERJ3RBD103	M.RESISTOR CH 1/16W 10K	1	
R6811	ERJ3RED220	M.RESISTOR CH 1/16W 22	1	
R6812	ERJ3RBD562	M.RESISTOR CH 1/16W 5.6K	1	
R6813,14	ERJ3RBD363	M.RESISTOR CH 1/16W 36K	2	
R6815,16	ERJ3RED100	M.RESISTOR CH 1/16W 10	2	
R6817	ERJ6GEY0R00	M.RESISTOR CH 1/10W 0	1	DOYDR0000005
R6818	ERJ3RBD103	M.RESISTOR CH 1/16W 10K	1	
R6820	ERJ3RED820	M.RESISTOR CH 1/16W 82	1	
R6821	ERJ3RBD332	M.RESISTOR CH 1/16W 3.3K	1	
R6822,23	ERJ3RBD123	M.RESISTOR CH 1/16W 12K	2	
R6824,25	ERJ3RED100	M.RESISTOR CH 1/16W 10	2	
R6826	ERJ6GEY0R00	M.RESISTOR CH 1/10W 0	1	DOYDR0000005
R6827	ERJ3RBD472	M.RESISTOR CH 1/16W 4.7K	1	
R6828	ERJ3RED270	M.RESISTOR CH 1/16W 27	1	
R6829	ERJ3RBD104	M.RESISTOR CH 1/16W 100K	1	
R6830	ERJ3RED270	M.RESISTOR CH 1/16W 27	1	
R6831	ERJ3RBD103	M.RESISTOR CH 1/16W 10K	1	
R6832	ERJ3RBD473	M.RESISTOR CH 1/16W 47K	1	
R6833	ERJ3RBD273	M.RESISTOR CH 1/16W 27K	1	
R6834	ERJ6RBD511	M.RESISTOR CH 1/10W 510	1	
R6835	ERJ3RBD104	M.RESISTOR CH 1/16W 100K	1	
R6836	ERJ3RBD303	M.RESISTOR CH 1/16W 30K	1	
R6837	ERJ3RBD103	M.RESISTOR CH 1/16W 10K	1	
R6838	ERJ3RBD303	M.RESISTOR CH 1/16W 30K	1	
R6839	ERJ3RBD203	M.RESISTOR CH 1/16W 20K	1	
R6840	ERJ3RBD103	M.RESISTOR CH 1/16W 10K	1	
R6841	ERJ3RBD203	M.RESISTOR CH 1/16W 20K	1	
R6842,43	ERJ3RBD303	M.RESISTOR CH 1/16W 30K	2	
R6844	ERJ3RBD203	M.RESISTOR CH 1/16W 20K	1	
R6845	ERJ3RBD103	M.RESISTOR CH 1/16W 10K	1	
R6846	ERJ3RBD203	M.RESISTOR CH 1/16W 20K	1	
R6847	ERJ3RBD473	M.RESISTOR CH 1/16W 47K	1	
R6849	ERJ3RBD243	M.RESISTOR CH 1/16W 24K	1	
R6850	ERJ3RBD562	M.RESISTOR CH 1/16W 5.6K	1	
R6851	ERJ3RBD123	M.RESISTOR CH 1/16W 12K	1	
R6852	ERJ3RBD563	M.RESISTOR CH 1/16W 56K	1	
R6853	ERJ3RBD223	M.RESISTOR CH 1/16W 22K	1	
R6854	ERJ3RBD362	M.RESISTOR CH 1/16W 3.6K	1	
R6855,56	ERJ3RBD303	M.RESISTOR CH 1/16W 30K	2	
R6857	ERJ6GEY0R00	M.RESISTOR CH 1/10W 0	1	DOYDR0000005
R6858	ERJ3RBD103	M.RESISTOR CH 1/16W 10K	1	
R6859	ERJ3RBD473	M.RESISTOR CH 1/16W 47K	1	
R6860	ERJ3RBD103	M.RESISTOR CH 1/16W 10K	1	
R6861	ERJ3RBD303	M.RESISTOR CH 1/16W 30K	1	
R6862	ERJ6RBD113	M.RESISTOR CH 1/10W 11K	1	
R6863	ERJ6RBD122	M.RESISTOR CH 1/10W 1.2K	1	
R6864	ERJ3RBD473	M.RESISTOR CH 1/16W 47K	1	
R6865	ERJ3RBD102	M.RESISTOR CH 1/16W 1K	1	
R6866	ERJ3RBD473	M.RESISTOR CH 1/16W 47K	1	
R6867	ERJ3RBD102	M.RESISTOR CH 1/16W 1K	1	
R6869	ERJ3RED330	M.RESISTOR CH 1/16W 33	1	
R6870	ERJ3GEYJ272	M.RESISTOR CH 1/16W 2.7K	1	
R6872	ERJ3RBD102	M.RESISTOR CH 1/16W 1K	1	
R6874	ERJ3RBD331	M.RESISTOR CH 1/16W 330	1	
R6875	ERJ3RBD473	M.RESISTOR CH 1/16W 47K	1	
R6876	ERJ3RBD101	M.RESISTOR CH 1/16W 100	1	
R6877	ERJ3GEYJ105	M.RESISTOR CH 1/16W 1M	1	
R6879	ERX2SJ1R0	M.RESISTOR 2W	1	1

Ref.No.	Part No.	Part Name & Description	Pcs	Remarks
SW6200	VSS0367-08B	SWITCH	1	
TP6100-05	EYF6CU	TEST POINT	6	
TP6300-04	EYF6CU	TEST POINT	5	
TP6400-05	EYF6CU	TEST POINT	6	
TP6600-04	EYF6CU	TEST POINT	5	
TP6800-03	EYF6CU	TEST POINT	4	
X6200	H0J100500016	CRYSTAL OSCILLATOR	1	
X6500	H1A3305B0005	CRYSTAL OSCILLATOR	1	
		MISCELLANEOUS		
VMS4913	P.C.B. BOARD SPACER		6	
XYN3+J5	SCREW		6	
VMS4950	P.C.B. POST		2	
XYN26+K5	SCREW		2	
■ E2	VEP13114A	SUB P.C.B. BOARD	1 (RTL)	
C3101	EEVHP1B100	E.CAPACITOR 25V 10U	1	
C3102	EEVHB1A330	E.CAPACITOR 10V 33U	1	
C3103,04	F1H1H104A783	C.CAPACITOR CH 50V 0.1U	2	
C3105	ECUX1H390JCV	C.CAPACITOR CH 50V 39P	1	
C3106	ECJ1V1C1H220J	C.CAPACITOR CH 50V 22P	1	
C3107,08	F1H1H104A783	C.CAPACITOR CH 50V 0.1U	2	
C3109	ECJ1V1C1H560J	C.CAPACITOR CH 50V 560P	1	
C3110	ECJ1V1C1H220J	C.CAPACITOR CH 50V 22P	1	
C3111,12	F1H1H104A783	C.CAPACITOR CH 50V 0.1U	2	
C3113	ECUX1H101JCV	C.CAPACITOR CH 50V 100P	1	
C3114	ECUX1H470JCV	C.CAPACITOR CH 50V 47P	1	
C3115	EEVHP1E100	E.CAPACITOR 25V 10U	1	
C3119-21	EEVHP1E220	E.CAPACITOR 25V 22U	3	
C3201	EEVHP1E100	E.CAPACITOR 25V 10U	1	
C3202	EEVHB1A330	E.CAPACITOR 10V 33U	1	
C3203,04	F1H1H104A783	C.CAPACITOR CH 50V 0.1U	2	
C3205	ECUX1H390JCV	C.CAPACITOR CH 50V 39P	1	
C3206	ECJ1V1C1H220J	C.CAPACITOR CH 50V 22P	1	
C3207-09	F1H1H104A783	C.CAPACITOR CH 50V 0.1U	3	
C3210	ECJ1V1C1H560J	C.CAPACITOR CH 50V 560P	1	
C3211	ECJ1V1C1H270J	C.CAPACITOR CH 50V 27P	1	
C3212	F1H1H104A783	C.CAPACITOR CH 50V 0.1U	1	
C3213	ECJ1V1C1H560J	C.CAPACITOR CH 50V 560P	1	
C3214	ECJ1V1C1H220J	C.CAPACITOR CH 50V 22P	1	
C3215,16	F1H1H104A783	C.CAPACITOR CH 50V 0.1U	2	
C3217	ECUX1H101JCV	C.CAPACITOR CH 50V 100P	1	
C3218	ECJ1V1C1H560J	C.CAPACITOR CH 50V 560P	1	
C3219,20	F1H1H104A783	C.CAPACITOR CH 50V 0.1U	2	
C3221	ECJ1V1C1H181J	C.CAPACITOR CH 50V 180P	1	
C3222	ECUX1H101JCV	C.CAPACITOR CH 50V 100P	1	
C3223	EEVHP1E220	E.CAPACITOR 25V 22U	1	
C3301	EEVHP1E100	E.CAPACITOR 25V 10U	1	
C3302	EEVHB1A330	E.CAPACITOR 10V 33U	1	
C3303,04	F1H1H104A783	C.CAPACITOR CH 50V 0.1U	2	
C3305	ECUX1H390JCV	C.CAPACITOR CH 50V 39P	1	
C3306	ECJ1V1C1H220J	C.CAPACITOR CH 50V 22P	1	
C3307-09	F1H1H104A783	C.CAPACITOR CH 50V 0.1U	3	
C3310	ECJ1V1C1H560J	C.CAPACITOR CH 50V 560P	1	
C3311	ECJ1V1C1H270J	C.CAPACITOR CH 50V 27P	1	
C3312	F1H1H104A783	C.CAPACITOR CH 50V 0.1U	1	
C3313	ECJ1V1C1H560J	C.CAPACITOR CH 50V 560P	1	
C3314	ECJ1V1C1H220J	C.CAPACITOR CH 50V 22P	1	
C3315,16	F1H1H104A783	C.CAPACITOR CH 50V 0.1U	2	
C3317	ECUX1H101JCV	C.CAPACITOR CH 50V 100P	1	
C3318,19	F1H1H104A783	C.CAPACITOR CH 50V 0.1U	2	
C3320	ECJ1V1C1H560J	C.CAPACITOR CH 50V 560P	1	
C3321	ECJ1V1C1H181J	C.CAPACITOR CH 50V 180P	1	
C3322	ECUX1H101JCV	C.CAPACITOR CH 50V 100P	1	
C3323	EEVHP1E220	E.CAPACITOR 25V 22U	1	



Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
R3306	ERJ3GEYJ100	M.RESISTOR CH 1/16W 10	1	
R3307	ERJ3GEYJ471	M.RESISTOR CH 1/16W 470	1	
R3308,09	ERJ3GEYJ101	M.RESISTOR CH 1/16W 100	2	
R3310	ERJ3GEYJ471	M.RESISTOR CH 1/16W 470	1	
R3311	ERJ3GEYJ100	M.RESISTOR CH 1/16W 10	1	
R3312	ERJ3GEYJ471	M.RESISTOR CH 1/16W 470	1	
R3313	ERJ3GEYJ100	M.RESISTOR CH 1/16W 10	1	
R3314	ERJ3GEYJ471	M.RESISTOR CH 1/16W 470	1	
R3315	ERJ3GEYJ102	M.RESISTOR CH 1/16W 1K	1	
R3316,17	ERJ3GEYJ151	M.RESISTOR CH 1/16W 150	2	
R3318	ERJ3GEYJ102	M.RESISTOR CH 1/16W 1K	1	
R3319	ERJ3GEYJ560	M.RESISTOR CH 1/16W 56	1	
R3320	ERJ3GEYJ102	M.RESISTOR CH 1/16W 1K	1	
R3321,22	ERJ3GEYJ221	M.RESISTOR CH 1/16W 220	2	
R3323	ERJ3GEYJ102	M.RESISTOR CH 1/16W 1K	1	
R3324	ERJ3GEYJ560	M.RESISTOR CH 1/16W 56	1	
R3325	ERJ3GEYJ102	M.RESISTOR CH 1/16W 1K	1	
R3326	ERJ3GEYJ560	M.RESISTOR CH 1/16W 56	1	
R3327	ERJ3GEYJ102	M.RESISTOR CH 1/16W 1K	1	
R3328,29	ERJ3GEYJ221	M.RESISTOR CH 1/16W 220	2	
R3330	ERJ3GEYJ102	M.RESISTOR CH 1/16W 1K	1	
R3331	ERJ3GEYJ560	M.RESISTOR CH 1/16W 56	1	
R3332	ERJ3GEYJ102	M.RESISTOR CH 1/16W 1K	1	
R3333,34	ERJ3GEYJ221	M.RESISTOR CH 1/16W 220	2	
R3335	ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	D0GB103JA002
R3336	ERJ3GEYJ102	M.RESISTOR CH 1/16W 1K	1	
R3337	ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	D0GB103JA002
R3338	ERJ3RBD122	M.RESISTOR CH 1/16W 1.2K	1	
R3339	ERJ3RBD272	M.RESISTOR CH 1/16W 2.7K	1	
R3340	ERJ3GEYJ102	M.RESISTOR CH 1/16W 1K	1	
R3341,42	ERJ3GEYJ560	M.RESISTOR CH 1/16W 56	2	
R3343	ERJ3GEYJ102	M.RESISTOR CH 1/16W 1K	1	
R3344	ERJ3GEYJ100	M.RESISTOR CH 1/16W 10	1	
R3409,10	ERJ3GEYR000	M.RESISTOR CH 1/16W 0	2	
R3411,12	ERJ3GEYJ100	M.RESISTOR CH 1/16W 10	2	
R3413-20	ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	8	D0GB103JA002
R3601-04	ERJ3GEYJ330	M.RESISTOR CH 1/16W 33	4	
R3605-10	ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	6	D0GB103JA002
SW3601	WSS0367-06B	SWITCH	1	K0D161A00001
TG3601-03	EYF6CU	TEST POINT	3	
TP3101,02	EYF6CU	TEST POINT	2	
TP3201	EYF6CU	TEST POINT	1	
TP3301	EYF6CU	TEST POINT	1	
		MISCELLANEOUS		
	VMP7844	D-SUB ANGLE	1	
	K1YE25000007	SCREW	4	
	XWA26BFN	WASHER	4	
■ E3	VEP13115A	CVBS DEC P.C.BOARD	1	(RTL)
C100	ECJ1VP1E104Z	C.CAPACITOR CH 25V 0.1U	1	
C104	ECJ1VP1E104Z	C.CAPACITOR CH 25V 0.1U	1	
C108	ECJ1VP1E104Z	C.CAPACITOR CH 25V 0.1U	1	
C200	ECUX1C106VBP	C.CAPACITOR CH 16V 10U	1	
C201	EEFCDOJ470R	E.CAPACITOR 6.3V 47U	1	
C202,03	ECJ1VP1E104Z	C.CAPACITOR CH 25V 0.1U	2	
C204,05	ECUX1H080DCV	C.CAPACITOR CH 50V 8P	2	
C206-13	ECUX1E473KVB	C.CAPACITOR CH 25V 0.047U	8	
C214-27	ECJ1VP1E104Z	C.CAPACITOR CH 25V 0.1U	14	
C400	ECQB1H471JP	P.CAPACITOR 50V 470P	1	
D100	MA2J72800L	DIODE	1	
IC200	LT1117CST	IC	1	
IC201	C1AB00001723	IC	1	

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
L200	J0JBC0000041	FILTER	1	
P100	VJP3950F008	CONNECTOR (MALE)	1	
P300	K1KA60A00132	CONNECTOR (MALE)	1	
Q100	2SD601A-R	TRANSISTOR	1	
R100	ERJ3GEYJ223	M.RESISTOR CH 1/16W 22K	1	
R104	DDGB123JA002	M.RESISTOR CH 1/16W 12K	1	
R108	ERJ3GEYG102	M.RESISTOR CH 1/16W 1K	1	
R112	ERJ6RED470	M.RESISTOR CH 1/10W 47	1	
R200-02	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	3	
R203	ERJ6RBD101	M.RESISTOR CH 1/10W 100	1	
R204	ERJ6RED100	M.RESISTOR CH 1/10W 10	1	
R205	ERJ6RBD181	M.RESISTOR CH 1/10W 180	1	
R206	ERJ6RBD151	M.RESISTOR CH 1/10W 150	1	
R207-09	ERJ6RED560	M.RESISTOR CH 1/10W 56	3	
R210	EXBV8V102J	COMBI.R-R	1K	1
R211-13	ERJ3GEY332	M.RESISTOR CH 1/16W 3.3K	3	
R215	ERJ3GEYG332	M.RESISTOR CH 1/16W 3.3K	1	
R219	ERJ3GEYG102	M.RESISTOR CH 1/16W 1K	1	
R220-30	ERJ3GEYJ330	M.RESISTOR CH 1/16W 33	11	
R231	ERJ3GEYJ220	M.RESISTOR CH 1/16W 22	1	
R232,33	ERJ3GEYJ330	M.RESISTOR CH 1/16W 33	2	
TG100	EYF6CU	TEST POINT	1	
TG300	EYF6CU	TEST POINT	1	
X200	HOJ245500014	CRYSTAL OSCILLATOR	1	
■ E4	VEP10120A	SDI P.C.BORAD	1	(RTL)
C1,C2	FI1H470A231	C.CAPACITOR CH 50V 47P	2	
C5	FI1H1C104A005	C.CAPACITOR CH 16V 0.1U	1	
C6	FI1H1A105A004	C.CAPACITOR CH 10V 1U	1	
C8	FI1H1C104A005	C.CAPACITOR CH 16V 0.1U	1	
C10	FI1H1C104A005	C.CAPACITOR CH 16V 0.1U	1	
C11,12	ECST1CY475	T.CAPACITOR CH 16V 4.7U	2	
C13	ECST1CY105R	C.CAPACITOR CH 16V 1U	1	
C14	FI1H1C104A005	C.CAPACITOR CH 16V 0.1U	1	
C15	ECST1AY106Z	T.CAPACITOR CH 10V 10U	1	
C16-19	FI1H1C104A005	C.CAPACITOR CH 16V 0.1U	4	
C20	FI1H1H03A190	C.CAPACITOR CH 50V 0.01U	1	
C21	ECST1AY106Z	T.CAPACITOR CH 10V 10U	1	
C22-24	FI1H1C104A005	C.CAPACITOR CH 16V 0.1U	3	
C25	ECST1CY475	T.CAPACITOR CH 16V 4.7U	1	
C26	FI1H1C104A005	C.CAPACITOR CH 16V 0.1U	1	
C27	ECST1AY106Z	T.CAPACITOR CH 10V 10U	1	
C28	ECST1CY105R	C.CAPACITOR CH 16V 1U	1	
C29	FI1H1H22A190	C.CAPACITOR CH 50V 2200P	1	
C30,31	FI1H1C104A005	C.CAPACITOR CH 16V 0.1U	2	
C33-37	FI1H1C104A005	C.CAPACITOR CH 16V 0.1U	5	
C38,39	ECST1AY106Z	T.CAPACITOR CH 10V 10U	2	
C40	FI1H1C104A005	C.CAPACITOR CH 16V 0.1U	1	
C41	ECST1AY106Z	T.CAPACITOR CH 10V 10U	1	
C47	FI1H1C104A005	C.CAPACITOR CH 16V 0.1U	1	
C50	FI1H1H5A612	C.CAPACITOR CH 50V 1.5P	1	
C51-54	ECUX1C106VBP	C.CAPACITOR CH 16V 10U	4	
C60	FI1E1H1040018	C.CAPACITOR CH 50V 0.1U	1	
D3	AA1101W330	DIODE	1	B3ADB0000018
D4	PG1101W330	DIODE	1	
D7-10	MA2J72800L	DIODE	4	
IC2	C1AB00001653	IC	1	
IC3	COJBAZ000279	IC	1	
IC4	C1AB00001900	IC	1	
IC5,C6	COJBAZ000279	IC	2	

Components identified with the mark  $\Delta$  have the special characteristics for safety.  
When replacing any of these components, use only the same type.

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks	Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
J1, J2	VJP4131	CONNECTOR (MALE)	2	K1QZB1AD0003	■ E6	VEP11110A	POWER SUB P.C. BOARD	1	(RTL)
L1	G1C6N8J00006	COIL	6.8UH	1					
L2-L8	J0JD00000016	COIL		7					
L9	G1C5N6J00001	COIL	5.6UH	1	C101	ECJ1VF1E104Z	C.CAPACITOR CH 25V 0.1U	1	
P1	K1KA60A00132	CONNECTOR (MALE)	1		C102	EEVVB1HR33	E.CAPACITOR 50V 0.33U	1	
R1, R2	ERJ3GEYJ750	M.RESISTOR CH 1/16W	75	2	D101	RK34	DIODE	1	B0JANE00005
R3	ERJ3GEYJ390	M.RESISTOR CH 1/16W	39	1	D102	MA3200-M	DIODE	1	
R9	ERJ3GEYJ101	M.RESISTOR CH 1/16W	100	1	D6815	MA165	DIODE	1	MA2C165
R10	ERJ3GEY0R00	M.RESISTOR CH 1/16W	0	1	L101, 02	VLF1151A132	COIL	2	
R13	ERJ3GEYJ330	M.RESISTOR CH 1/16W	33	1	P101	VJP2824B003	CONNECTOR (MALE)	1	K1KA03B00005
R14	ERJ3GEYJ222	M.RESISTOR CH 1/16W	2.2K	1	P102	K1KA02B00075	CONNECTOR (MALE)	1	
R15	ERJ3GEYJ271	M.RESISTOR CH 1/16W	270	1	P103	VJP3518D005	CONNECTOR (MALE)	1	
R17	ERJ3GEYJ222	M.RESISTOR CH 1/16W	2.2K	1	P104	K1KA03B00102	CONNECTOR (MALE)	1	
R18	ERJ3GEYJ750	M.RESISTOR CH 1/16W	75	1	Q101	B1DDHF00001	TRANSISTOR	1	
R20, 21	ERJ3GEYJ750	M.RESISTOR CH 1/16W	75	2	QR101, 02	UN2212	TRANSISTOR-RESISTOR	2	UNR2212
R22	ERJ3GEY0R00	M.RESISTOR CH 1/16W	0	1	$\Delta$ R101	K5H5021A0004	FUSE	1	
R23-27	ERJ3GEYJ222	M.RESISTOR CH 1/16W	2.2K	5	R102	ERJ6GEYG104	M.RESISTOR CH 1/10W 100K	1	
R29	ERJ3GEY0R00	M.RESISTOR CH 1/16W	0	1	R103	ERJ6GEYF123	M.RESISTOR CH 1/10W 12K	1	
R30	ERJ3GEYJ221	M.RESISTOR CH 1/16W	220	1	R104	ERJ6GEYG102	M.RESISTOR CH 1/10W 1K	1	
R31-51	ERJ3GEYJ100	M.RESISTOR CH 1/16W	10	21	R105	ERJ6GEY103	M.RESISTOR CH 1/10W 10K	1	
R52	ERJ3GEYJ221	M.RESISTOR CH 1/16W	220	1	R106-10	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	5	
R54, 55	ERJ3GEYG472	M.RESISTOR CH 1/16W	4.7K	2					
R56, 57	ERJ3GEYJ222	M.RESISTOR CH 1/16W	2.2K	2					
R58	ERJ3GEYJ103	M.RESISTOR CH 1/16W	10K	1					
R59	ERJ3GEYJ222	M.RESISTOR CH 1/16W	2.2K	1					
TP7	DOYDR0000011	M.RESISTOR CH 1/8W	0	1					
X2	H4G1487B0002	CRYSTAL OSCILLATOR	1						
■ E5	VEP10119A	SDI SUB P.C. BOARD	1	(RTL)	■ E7	VEP10117A	TALLY P.C. BOARD	1	(RTL)
C502	ECUX1E105KBM	C.CAPACITOR CH 25V	1U	1	D401, 02	LN1351C	DIODE	2	
C503	ECJ1VF1E104Z	C.CAPACITOR CH 25V	0.1U	1	D403, 04	LN1251CTR	LED	2	
D501, 02	MA152K	DIODE			P401	VJP3950A003D	CONNECTOR (MALE)	1	
J501	K1QBB1BA0012	CONNECTOR (FEMALE)	1		■ E8	VEP10115A	FRONT P.C. BOARD	1	(RTL)
J502	VJP4131	CONNECTOR (MALE)	1	K1QZB1AD0003	C201	F1H1H104A783	C.CAPACITOR CH 50V 0.1U	1	
J503, 04	K1QBB1BA0012	CONNECTOR (FEMALE)	2		C202-08	ECJ1VB1H103K	C.CAPACITOR CH 50V 0.01U	7	
J505	VJP4131	CONNECTOR (MALE)	1	K1QZB1AD0003	C210-12	F1H1H104A783	C.CAPACITOR CH 50V 0.1U	3	
L501	VLQ07823N3	COIL		G1C3N3Z2A0001	C213	ECJ1VB1H103K	C.CAPACITOR CH 50V 0.01U	1	
L502	VLQ0441K4R7	COIL	4.7UH	1	IC201, 02	COJBAZ001935	IC	2	
L503, 04	VLQ07823N3	COIL		IC203	COJBAQ000175	IC	1		
P500	VJP3950F004	CONNECTOR	1		L201	G1C101K00022	COIL	100UH	1
Q501, 02	2SD601A-R	TRANSISTOR	2		P201	K1KA10A00322	CONNECTOR (MALE)	1	
QR501	UNR221300L	TRANSISTOR	1		P202	VJP3950C012	CONNECTOR (MALE)	1	
R501	ERJ3GEYJ750	M.RESISTOR CH 1/16W	75	1	QR204-07	UN2214	TRANSISTOR-RESISTOR	4	UNR221400L
R503, 04	ERJ3GEYJ103	M.RESISTOR CH 1/16W	10K	2	R201-12	ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	12	D0GB103JA002
R507	ERJ3GEYJ103	M.RESISTOR CH 1/16W	10K	1	R213-15	ERJ3GEYG472	M.RESISTOR CH 1/16W 4.7K	3	
R508	ERJ3GEYJ750	M.RESISTOR CH 1/16W	75	1	R216-19	ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	4	D0GB103JA002
RY501, 02	K6D1CGA00008	RELAY	2		R220-25	ERJ3GEYG472	M.RESISTOR CH 1/16W 4.7K	6	
		MISCELLANEOUS			R226, 27	ERJ3GEYJ330	M.RESISTOR CH 1/16W 33	2	
VMP7843	SDI P.C.B. ANGLE		1		R228	D1H83040002	COMBI.R-R	33	1
XYN3+K6	SCREW		1		R229-32	ERJ3GEYJ681	M.RESISTOR CH 1/16W 680	4	
					R233-36	ERJ3GEYG472	M.RESISTOR CH 1/16W 4.7K	4	
					R237	ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	D0GB103JA002

